AI DataLake

API Reference

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Huawei Technologies Co., Ltd.

Address: Huawei Industrial Base
Bantian, Longgang
Shenzhen 518129
People's Republic of China

Website: https://www.huawei.com

Email: support@huawei.com

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1 Before You Start

Welcome to AI DataLake. Huawei Cloud AI DataLake is an enterprise-grade, intelligent, multimodal data analytics and management platform that provides everything you need to build data infrastructure in the AI era. AI DataLake provides four core compute engines: **Aura (multimodal data engine)**, **Ray (AI compute engine)**, **Spark (batch processing engine)**, and **Flink (stream processing engine)**. These engines focus on multimodal data processing, hybrid compute scheduling, and open lakehouse data processing. They help you build a next-generation multimodal lakehouse that drives innovation through data and AI synergy.

This document describes how to use APIs to perform operations on AI DataLake, such as creating workspaces, creating endpoints, and executing Spark SQL jobs. For details about all supported operations, see **API Overview**.

Before calling an AI DataLake API, ensure that you are familiar with related concepts. For details, see **Service Overview**.

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**.

Concepts

- Account

  An account is created upon successful registration with HUAWEI CLOUD. 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. For security purposes, do not directly use the account to perform routine management but create IAM users and grant them permissions for routine management.

- User

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

  An IAM user can view the account ID and user ID on the **My Credentials** page of the console. The account name, username, and password will be required for API authentication.

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- 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 common regions and dedicated regions. A common region provides common cloud services that should be made available to all tenants. A dedicated region provides services of a specific type or only for specific tenants.

  For details, see **Region and AZ**.

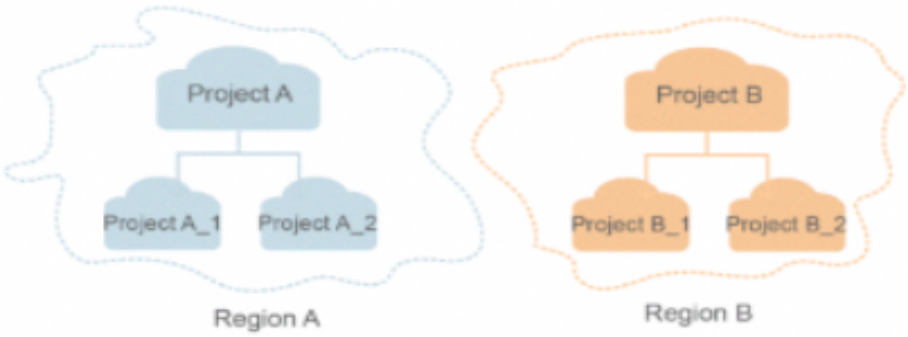
- AZ

  An availability zone (AZ) comprises one or more 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 connected 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 HUAWEI CLOUD region, and subprojects can be created under each default project. Users can be granted permissions to access all resources in a specific project. If you need more refined access control, you can create subprojects under a default project and purchase resources in subprojects. Then you can assign required permissions for users to access only resources in specific subprojects.

  Figure 1-1 Project isolating model

  To view a project ID, go to the **My Credentials** page.

- Enterprise Project

  Enterprise projects group and logically isolate resources. An enterprise project can contain resources from different regions, and resources can be transferred between enterprise projects.

  For details about how to obtain enterprise project IDs and features, see the **Enterprise Management Service User Guide**.

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2 API Overview

Table 2-1 describes the RESTful APIs provided by AI DataLake.

Table 2-1 AI DataLake APIs

Type	Subtype	Description
Aura engine APIs	AuraSQL Job Management	AuraSQL job management APIs, including APIs for creating, obtaining, querying, and closing sessions, executing SQL statements and obtaining execution records, obtaining statement results and execution status, canceling statement execution, querying statement monitoring details, and monitoring SQL execution operators.
Ray engine APIs	RayJob Management	RayJob management APIs, including APIs for querying, running, and canceling jobs, and creating and closing interactive sessions.
Spark engine APIs	Spark Job Management	Spark job management APIs, including APIs for Spark job query, startup, cancellation, and other operations.
	Spark SQL Job Management	Spark SQL job management APIs, including APIs for querying, executing, canceling, and restarting Spark SQL jobs.
	SparkOperators Operation Management	SparkOperators operation management APIs, including the API for querying the status of Spark asynchronous operations.
Flink engine APIs	Flink Job Management	Flink job management APIs, including creating and canceling Flink jobs, and listing jobs, statuses, details, and event detail lists.

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Type	Subtype	Description
	Flink Savepoint Management	Flink savepoint management APIs, including APIs for creating and deleting savepoints of Flink jobs, and querying the savepoint list and savepoint details.
	Flink Job Autoscaling Management	Flink job autoscaling management APIs, including APIs for querying the autoscaling configuration of Flink jobs, querying the historical records of Flink job autoscaling, and hot updating the autoscaling configuration of Flink jobs.
User Agreement Management		User agreement management APIs, including APIs for agreement query, signing, deletion, and other operations.
Agency Management		Service agency management APIs, including APIs for service agency creation, query, deletion, and other operations.
Workspace Management		Workspace management APIs, including APIs for workspace creation, update, query, and deletion.
Compute Resource Management		Compute resource APIs, including APIs for compute resource creation, update, query, deletion, and other operations.
Endpoint Management		Endpoint management APIs, including APIs for endpoint creation, update, query, deletion, and other operations.
Ray Federation Endpoint Management		Ray Federation endpoint management APIs, including APIs for creating, updating, querying, and deleting endpoints.
Tenant Image Management		Tenant image management APIs, including APIs for registering, adding, updating, viewing, and deleting images.
Image Snapshot Management		Image snapshot management APIs, including APIs for querying, creating, and deleting image snapshots.
TMS Management		TMS management APIs, including APIs for batch adding, querying, and deleting tags.

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3 Calling APIs

3.1 Making an API Request

This section explains the REST API request structure and describes how to call an API using the API for **creating an IAM user** as an example.

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 passed separately.

Table 3-1 Parameters in a URI

Parameter	Description
URI-scheme	Protocol used to transmit requests. All APIs use HTTPS.
Endpoint	Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from **Endpoints**. For example, The endpoint of IAM in the CN-Hong Kong region is **iam.ap-southeast-1.myhuaweicloud.com**.
resource-path	Access path of an API for performing a specified operation. You can obtain the path from the URI of the API. For example, **resource-path** of the API for creating an IAM user is **/v3.0/OS-USER/users**.
query-string	Query parameter, which is optional. A question mark (**?**) must be added before a query parameter. The format is *Parameter name*=*Parameter value*. For example, **limit=10** indicates that a maximum of 10 records will be displayed.

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For example, if you want to create an IAM user, use the endpoint of any region because IAM is a global service. The endpoint of the CN-Hong Kong region is **iam.cn-north-4.myhuaweicloud.com. iam.ap-southeast-1.myhuaweicloud.com.** Find **resource-path** (**/v3.0/OS-USER/users**) in the URI of the **Creating an IAM User** API.

```
https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
```

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 request methods

Method	Description
GET	Requests a 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 a specific resource, for example, an object.
HEAD	Requests the server to return 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.

Check the URI of the API for **creating an IAM user**. The request method is **POST**, and the request is as follows:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
```

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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 are provided for specific APIs, if any.
- **X-Auth-Token**: specifies the user token. When token-based authentication is used, this field is mandatory. It is the response to the API used for **obtaining a user token through password authentication**. This API is the only one that does not require authentication.

For the **Creating an IAM User** API, the following is an example of the request with headers added when token-based authentication is used:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
Content-Type: application/json
X-Auth-Token: ABCDEFG....
```

Request Body

The request body is usually sent in a structured format, which corresponds to the **Content-Type** in the request header. The request body contains the content other than the request header. If the request body contains Chinese characters, the character encoding mode in the **Content-Type** must be set to **UTF-8**. For example, the request body is **Content-Type: application/json; charset=utf-8**.

Request bodies vary with APIs. Some APIs do not require a request body, such as the APIs requested using GET and DELETE methods.

You can obtain the request parameters and descriptions from the API request. For details, see **Creating an IAM User**. The following provides an example request with a body included. Replace the bold fields with the actual values.

- **accountid** indicates the ID of the account to which the IAM user belongs.
- **username** indicates the IAM username to be created.
- **email** indicates the email address of the IAM user.
- ******** indicates the login password of the IAM user.

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
Content-Type: application/json
X-Auth-Token: ABCDEFG....

{
    "user": {
        "domain_id": "accountid",
        "name": "username",
        "password": "**********",
        "email": "email",
        "description": "IAM User Description"
    }
}
```

If all data required for the API request is available, you can send the request to call the API through curl, Postman, or coding.

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3.2 Authentication

API calls support token-based authentication.

Token-based Authentication

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.

NOTE

- The validity period of a token is 24 hours. When using a token for authentication, cache it to prevent frequently API calling.
- Ensure that the token is valid when you use it. Using a token that will soon expire may cause API calling failures.

The token can be obtained by calling the API for **obtaining a user token through password authentication**. A project-level token is required for calling this service API, that is, when calling the API for **obtaining a user token through password authentication**, set the value of **auth.scope** in the request body to **project**.

```
{
    "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. If the token is **ABCDEFG....**, add **X-Auth-Token: ABCDEFG....** to a request. For example:

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
Content-Type: application/json
X-Auth-Token: ABCDEFG....
```

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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 1*xx* to 5*xx*. It indicates the status of a request. For more information, see **Status Codes**.

For example, if status code **201** is returned for the API used to **create an IAM user**, the request is successful.

Response Header

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

Check the response header of the API for **creating an IAM user**. The **x-subject-token** field is the user token. This token can then be used to authenticate the calling of other APIs.

Figure 3-2 Response header

```
"X-Frame-Options": "SAMEORIGIN",
"X-IAM-ETag-id": "2562365939-d8f6f12921974cb097338ac11fceac8a",
"Transfer-Encoding": "chunked",
"Strict-Transport-Security": "max-age=31536000; includeSubdomains;",
"Server": "api-gateway",
"X-Request-Id": "af2953f2bcc67a42325a69a19e6c32a2",
"X-Content-Type-Options": "nosniff",
"Connection": "keep-alive",
"X-Download-Options": "noopen",
"X-XSS-Protection": "1; mode=block;",
"X-IAM-Trace-Id": "token_[redacted]_null_af2953f2bcc67a42325a69a19e6c32a2",
"Date": "Tue, 21 May 2024 09:03:40 GMT",
"Content-Type": "application/json; charset=utf8"
```

Response Body

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

The following example shows a part of the response body of the API for **creating an IAM user**. As the space is limited, only part of the content is displayed here.

```
{
    "user": {
        "id": "c131886aec...",
        "name": "IAMUser",
        "description": "IAM User Description",
        "areacode": "",
        "phone": "",
        "email": "***@***.com",
        "status": null,
        "enabled": true,
```

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```
        "pwd_status": false,
        "access_mode": "default",
        "is_domain_owner": false,
        "xuser_id": "",
        "xuser_type": "",
        "password_expires_at": null,
        "create_time": "2024-05-21T09:03:41.000000",
        "domain_id": "d78cbac1.....",
        "xdomain_id": "30086000.....",
        "xdomain_type": "",
        "default_project_id": null
    }
}
```

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": "Request body is invalid.",
    "error_code": "IAM.0011"
}
```

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

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4 Application Cases

4.1 Creating a Workspace

Overview

This section describes the complete process of creating a workspace, including creating a workspace and viewing the workspace, by calling APIs.

This process assumes that the end tenant has been authorized on the console to use AI DataLake and has created a LakeFormation instance. For how to call this API, see **Calling an API**.

Prerequisites

- AI DataLake authorization has been completed.
- The LakeFormation instance ID has been obtained.

Procedure

- API information

  URI format: POST /v2/workspaces

  For details, see **Creating a Workspace**.

- Request example

  POST /v2/workspaces

  Request body:

```
{
  "name" : "AIDataLake",
  "description" : "AIDataLake-description",
  "metastore_id" : "3dca9242-8434-xxxx-xxxx-20ddc23884fb",
  "enterprise_project_id" : "01049549-82cd-xxxx-xxxx-ddb94350c125",
  "tags" : [ {
    "key" : "key1",
    "value" : "value1"
  }, {
    "key" : "key2",
    "value" : "value2"
  } ]
}
```

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- Response example

```
{
  "id" : "61ff9cae-2e9e-xxxx-xxxx-fc4e199c83be",
  "name" : "AIDataLake",
  "description" : "AIDataLake-description",
  "create_time" : "2026-06-22T08:27:32.000+00:00",
  "create_domain_name" : "test_domain",
  "create_user_name" : "test_user",
  "metastore_id" : "3dca9242-8434-xxxx-xxxx-20ddc23884fb",
  "enterprise_project_id" : "01049549-82cd-xxxx-xxxx-ddb94350c125",
  "tags" : [ {
    "key" : "key1",
    "value" : "value1"
  }, {
    "key" : "key2",
    "value" : "value2"
  } ]
}
```

Viewing a Workspace

- API information

  URI format: GET /v2/workspaces/{workspace_id}

  For details, see **Querying Details of a Workspace**.

- Request example

  GET /v2/workspaces/{workspace_id}

  {workspace_id}: ID of the workspace to be obtained.

- Response example

```
{
  "id" : "61ff9cae-2e9e-xxxx-xxxx-fc4e199c83be",
  "name" : "AIDataLake",
  "description" : "AIDataLake-description",
  "create_time" : "2026-06-22T08:27:32.000+00:00",
  "create_domain_name" : "test_domain",
  "create_user_name" : "test_user",
  "metastore_id" : "3dca9242-8434-xxxx-xxxx-20ddc23884fb",
  "enterprise_project_id" : "01049549-82cd-xxxx-xxxx-ddb94350c125",
  "tags" : [ {
    "key" : "key1",
    "value" : "value1"
  }, {
    "key" : "key2",
    "value" : "value2"
  } ]
}
```

4.2 Creating a Compute Resource

Overview

This section describes the complete process of creating and viewing compute resources by calling APIs.

This process assumes that the end tenant has been authorized on the console to use AI DataLake and has created a workspace. For how to call this API, see **Calling an API**.

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Prerequisites

- AI DataLake authorization has been completed.
- You have obtained the ID of the workspace where the resource is to be created.

Procedure

- API information

  URI format: POST /v2/workspaces/{workspace_id}/computes

  {workspace_id}: ID of the workspace where the compute resource is located.

  For details, see **Creating a Compute Resource**.

- Request example

  POST /v2/workspaces/{workspace_id}/computes

  Request body:

```
{
 "name" : "compute-01",
 "description": "Test compute resource",
 "capacity" : [ {
  "type" : "CPU",
  "capacity" : 64,
  "spec_code" : "aidatalake.cpu.x86.general.1c4g"
 } ],
 "charge_mode" : "postPaid"
}
```

- Response example

```
{
 "id" : "03141229-84cd-xxxx-xxxx-dd124320c125",
 "name" : "compute-01",
 "description": "Test compute resource",
 "charge_mode" : "postPaid",
 "capacity" : [ {
  "type" : "CPU",
  "capacity" : 64,
  "spec_code" : "aidatalake.cpu.x86.general.1c4g"
 } ],
 "status" : "PREPARING",
 "creator" : {
  "domain_name" : "test_domain",
  "domain_id" : "0676610f3a0xxxxxxxx50bea7ddf18c1",
  "user_name" : "test_user",
  "user_id" : "019e19fb78887xxxxxxxx4174cd5a002"
 }
}
```

Viewing a Compute Resource Pool

- API information

  URI format: GET /v2/workspaces/{workspace_id}/computes/{compute_id}

  {workspace_id}: ID of the workspace where the compute resource is located.

  For details, see **Viewing Details of a Compute Resource**.

- Request example

  GET /v2/workspaces/{workspace_id}/computes/{compute_id}

- Response example

```
{
 "id" : "03141229-84cd-xxxx-xxxx-dd124320c125",
 "name" : "compute-01",
```

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```
 "description": "Test compute resource",
 "charge_mode" : "postPaid",
 "capacity" : [ {
   "type" : "CPU",
   "capacity" : 64,
   "spec_code" : "aidatalake.cpu.x86.general.1c4g"
 } ],
 "update_time" : "2025-01-10T03:37:12.000+00:00",
 "create_time" : "2025-01-10T03:37:12.000+00:00",
 "status" : "RUNNING",
 "creator" : {
   "domain_name" : "test_domain",
   "domain_id" : "0676610f3a0xxxxxxxx50bea7ddf18c1",
   "user_name" : "test_user",
   "user_id" : "019e19fb78887xxxxxxxx4174cd5a002"
 }
}
```


4.3 Creating an Endpoint

Overview

This section describes how to create and view an endpoint by calling APIs.

This process assumes that the end tenant has been authorized on the console to use AI DataLake and has created a workspace. For how to call this API, see **Calling an API**.

Prerequisites

- AI DataLake authorization has been completed.
- The ID of the workspace where the endpoint is to be created has been obtained.
- If you create an endpoint in reserved resource or hybrid mode, you also need to obtain the compute resource ID. If you create an endpoint in pay-per-use mode, you do not need to obtain the compute resource ID.

Procedure

- API information

  URI format: POST /v2/workspaces/{workspace_id}/endpoints

  {workspace_id}: ID of the workspace where the endpoint is located.

  For details, see **Creating an Endpoint**.

- Request example

  POST /v2/workspaces/{workspace_id}/endpoints

  Request body:


```
{
 "compute_id" : "0150a336-dda9-xxxx-xxxx-af02ec424a5e",
 "name" : "spark-job-test",
 "display_name" : "spark-job-test",
 "resource_type" : "RESERVED",
 "engine" : {
   "type" : "SparkJob",
   "spark_config" : { },
   "scheduling_config" : {
     "max_concurrent_jobs" : 300,
     "scheduling_policy" : "RANDOM"
```


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```
  },
  "staging_config" : {
    "obs" : {
      "bucket_name" : "ai4db",
      "agency_name" : "aidatalake-spark"
    }
  }
 },
 "capacity" : [ {
  "type" : "CPU",
  "maximum_capacity" : 1000,
  "minimum_capacity" : 0,
  "use_ondemand_resource" : false,
  "spec_code" : "aidatalake.cpu.x86.general.1c2g"
 } ],
 "credential" : {
  "agency_name" : "aidatalake-spark"
 }
}
```

- Response example

```
{
 "id" : "2b3c4d5e6f7890abcdef1234567890ab",
 "name" : "spark-job-test",
 "display_name" : "spark-job-test",
 "description" : "SparkJob test endpoint",
 "status" : "CREATING",
 "engine" : {
  "type" : "SparkJob",
  "spark_config" : { },
  "scheduling_config" : {
    "max_concurrent_jobs" : 300,
    "scheduling_policy" : "RANDOM"
  }
 },
 "resource_type" : "RESERVED",
 "compute_id" : "0150a336-dda9-xxxx-xxxx-af02ec424a5e",
 "capacity" : [ {
  "type" : "CPU",
  "maximum_capacity" : 1000,
  "minimum_capacity" : 0,
  "use_ondemand_resource" : false,
  "spec_code" : "aidatalake.cpu.x86.general.1c2g"
 } ],
 "create_time" : "2025-01-10T03:37:12.000+00:00",
 "update_time" : "2025-01-10T03:37:12.000+00:00",
 "creator" : {
  "domain_name" : "test",
  "domain_id" : "0676610f3a0xxxxxxxx50bea7ddf18c1",
  "user_id" : "019e19fb78887xxxxxxxx4174cd5a002",
  "user_name" : "developer"
 }
}
```

Viewing Endpoint Details

- API information

  URI format: GET /v2/workspaces/{workspace_id}/endpoints/{endpoint_id}

  {workspace_id}: ID of the workspace where the endpoint is located.

  For details, see **Querying Details of an Endpoint**.

- Request example

  GET /v2/workspaces/{workspace_id}/endpoints/{endpoint_id}

- Response example

```
{
 "id" : "2b3c4d5e6f7890abcdef1234567890ab",
```

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```
 "name" : "spark-job-test",
 "display_name" : "spark-job-test",
 "description" : "SparkJob test endpoint",
 "status" : "RUNNING",
 "engine" : {
   "type" : "SparkJob",
   "spark_config" : { },
   "scheduling_config" : {
     "max_concurrent_jobs" : 300,
     "scheduling_policy" : "RANDOM"
   }
 },
 "resource_type" : "RESERVED",
 "compute_id" : "0150a336-dda9-xxxx-xxxx-af02ec424a5e",
 "capacity" : [ {
   "type" : "CPU",
   "maximum_capacity" : 1000,
   "minimum_capacity" : 0,
   "use_ondemand_resource" : false,
   "spec_code" : "aidatalake.cpu.x86.general.1c2g"
 } ],
 "create_time" : "2025-01-10T03:37:12.000+00:00",
 "update_time" : "2025-01-10T03:37:12.000+00:00",
 "creator" : {
   "domain_name" : "test",
   "domain_id" : "0676610f3a0xxxxxxxx50bea7ddf18c1",
   "user_id" : "019e19fb78887xxxxxxxx4174cd5a002",
   "user_name" : "developer"
 }
}
```


4.4 Using the AuraSQL API

Overview

This section describes the complete process of using an AuraSQL job by calling APIs, including creating a session, executing SQL statements, viewing SQL execution results, and closing the session.

This process assumes that the end tenant has been authorized on the console to use AI DataLake and has created a workspace and a session endpoint. For how to call this API, see **Calling an API**.

Prerequisites

- An Aura endpoint has been created and is in the **Running** state.
- The address of the engine for which a session is to be created has been obtained.
- The workspace ID for which a session is to be created has been obtained.
- The endpoint name for which a session is to be created has been obtained.
- The LakeFormation catalog name for which a session is to be created has been obtained.

Creating a Session

- API information

  URI format: POST /v2/workspaces/{workspace_id}/aura-sessions

  For details, see **Creating a Session**.

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- Request example

  POST /v2/workspaces/{workspace_id}/aura-sessions

  {workspace_id}: ID of the workspace where the endpoint is located.

  Request body:

```
{
   "endpoint_name":"aura-job-vzhh",
   "catalog_context":{
      "catalog_name": "xxx_default"
    }
}
```

- Response example

```
{
  "session_id": "019ec92b-f4cc-xxxx-xxxx-C46dcdd60929",
  "status": "RUNNING"
}
```

Executing a SQL Statement

- API information

  URI format: POST /v2/workspaces/{workspace_id}/aura-sessions/statements

  For details, see **Executing SQL Statements Under a Specified Session**.

- Request example

  POST /v2/workspaces/{workspace_id}/aura-sessions/statements

  {workspace_id}: ID of the workspace where the endpoint is located.

  Request body:

```
{
   "statement":"DROP SCHEMA IF EXISTS abcdefgh CASCADE; CREATE SCHEMA abcdefgh; DROP FUNCTION IF EXISTS test_gpu; CREATE FUNCTION test_gpu(x INTEGER) RETURNS TEXT handler = 'check_gpu_simple' runtime_version = '3.11' AS $$ def check_gpu_simple(x): return "hello world" $$ LANGUAGE python;",
   "limit": 1,
   "session_id": "019ec92b-f4cc-xxxx-xxxx-C46dcdd60929",
   "is_sync": false

}
```

- Response example

```
{
  "session_id": "019ec92b-f4cc-xxxx-xxxx-C46dcdd60929",
  "statement_id": "019eb5fb-871d-xxxx-xxxx-68534fa6f089",
  "status": 1
}
```

Viewing SQL Execution Results

- API information

  URI format: GET /v2/workspaces/{workspace_id}/aura-sessions/{session_id}/statements/{statement_id}

  For details, see **Viewing the Execution Result of a SQL Statement**.

- Request example

  GET /v2/workspaces/{workspace_id}/aura-sessions/{session_id}/statements/{statement_id}

  - *{workspace_id}* indicates the ID of the workspace where the endpoint is located.
  - *{session_id}* indicates the session ID.

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  - *{statement_id}* indicates the task ID of the SQL execution.
- Response example

```
{
 "status" : 0,
 "session_id" : "019ec92b-f4cc-xxxx-xxxx-C46dcdd60929",
 "statement_id" : "019eb5fb-871d-xxxx-xxxx-68534fa6f089",
 "results" : [ {
  "status" : "PGRES_TUPLES_OK",
  "statement_id" : "019eb5fb-871d-xxxx-xxxx-68534fa6f089",
  "num_rows" : 1,
  "row_count" : 1,
  "page_count" : 1,
  "page_no" : 1,
  "err_code" : "0",
  "sql_state" : "0",
  "message" : "",
  "result_set" : {
   "columns" : [ {
    "name" : "test_gpu",
    "table_id" : 0,
    "column_id" : 0,
    "format" : 0,
    "type" : 25,
    "size" : -1,
    "type_mod" : -1
   } ],
   "rows" : [ [ "0000000" ] ]
  }
 } ]
}
```

Closing a Session

- API information

  URI format: DELETE /v2/workspaces/{workspace_id}/aura-sessions/{session_id}

  For details, see **Deleting a Session**.
- Request example

  DELETE /v2/workspaces/{workspace_id}/aura-sessions/{session_id}
  - *{workspace_id}* indicates the ID of the workspace where the endpoint is located.
  - *{session_id}* indicates the session ID.

4.5 Using the Ray Job API

Overview

This section describes how to execute a complete Ray job process by calling an API, including running a Ray job, obtaining job details, and canceling a job.

This process assumes that the end tenant has been authorized on the console to use AI DataLake and has created a workspace, compute resource, and a RayJob endpoint. For how to call this API, see **Calling an API**.

Prerequisites

- The workspace ID of the Ray job to be executed has been obtained.

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- The compute resources for running the job have been created.
- A Ray job endpoint for the job to be executed has been created, and the endpoint name has been obtained.
- The Ray job endpoint is in the **Running** state.

Running a Ray Job

Call the API for running a job. Record the job ID returned by the API.

- Request example

  POST /v2/workspaces/{workspace_id}/ray-jobs

  {workspace_id}: Workspace ID, which is used for resource isolation.

- Request body:

```
{
   "name": "rayjob0615-4",
   "description": "description",
   "endpoint_name": "ray-test",
   "config": {
      "entrypoint": "python3 create_csv.py",
      "runtime_env": {
         "working_dir": "obs://ray-shared-csc/ray-zy/create_csv.zip",
         "pip": [
            "numpy==1.16.1"
         ],
         "env_vars": {
            "additionalProp1": "value1",
            "additionalProp2": "value2",
            "additionalProp3": "value3"
         }
      },
      "image": {
         "id": "dd877a59-5cbd-44c5-b8a7-dc464cca****",
         "image_version": "01ae8ee6-af8a-48a8-895b-8d4a70bf****"
      }
   }
}
```

- Response example

```
{
  "job_id" : "ac8111bf-3601-xxxx-xxxx-b41d3e636a4e"
}
```

Viewing Job Details

Call the API for viewing job details to view the complete configuration and execution result of a job.

- Request example

  GET /v2/workspaces/{workspace_id}/ray-jobs/{job_id}

  - *{workspace_id}*: Workspace ID, which is used for resource isolation.
  - *{job_id}*: Job ID in the response body for **Running a Ray Job**.

- Response example

```
{
   "name": "rayjob0615-4",
   "description": "description",
   "config": {
      "entrypoint": "python3 create_csv.py",
      "runtime_env":{
         "working_dir":"obs://ray-shared-csc/ray-zy/create_csv.zip",
         "pip": [
```

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```
            "numpy==1.16.1"
        ],
        "env_vars": {
            "additionalProp1": "value1",
            "additionalProp2": "value2",
            "additionalProp3": "value3"
        }
    },
    "image": {
        "id": "dd877a59-5cbd-44c5-b8a7-dc464cca****",
        "image_version": "01ae8ee6-af8a-48a8-895b-8d4a70bf****"
    }
  },
  "endpoint_name": "ray-test",
  "status": "QUEUED"
}
```


Canceling a Job Run

If a job needs to be terminated due to an execution exception, call the API for canceling a job run to cancel the job that is being executed. Only jobs in the **QUEUED** or **RUNNING** state can be canceled.

- Request example:

  POST /v2/workspaces/{workspace_id}/ray-jobs/{job_id}/cancel

  - *{workspace_id}*: Workspace ID, which is used for resource isolation.
  - *{job_id}*: Job ID in the response body for **Running a Ray Job**.
- Response example


```
{
  "job_id" : "ac8111bf-3601-xxxx-xxxx-b41d3e636a4e"
}
```


4.6 Using the SparkJob API

Overview

This section describes how to call APIs to execute a Spark job, including starting the Spark job, querying the Spark job status, and querying Spark job details.

This process assumes that the end tenant has been authorized on the console to use AI DataLake and has created a workspace and a Spark endpoint. For how to call this API, see **Calling an API**.

Prerequisites

- *workspace_id*: Workspace ID, which can be viewed on the workspace management page of the console.
- *endpoint_name*: Spark endpoint name, which can be viewed on the endpoint management page of the console or obtained by referring to **Listing All Endpoints**.

Starting a Spark Job

Call the API for starting a Spark job to submit the Spark job and record the job ID returned by the API.

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- Request example

  POST /v2/workspaces/{workspace_id}/spark-jobs

  {workspace_id}: Workspace ID, which is used for resource isolation.

- Request body:

```
{
  "name" : "spark-jar-job-example",
  "endpoint_name" : "spark-endpoint",
  "job_config" : {
    "type" : "spark_jar_job",
    "main_class" : "com.example.SparkJobDriver",
    "main_jar" : "obs://bucket/path/job.jar",
    "main_args" : [ "--input", "obs://bucket/input", "--output", "obs://bucket/output" ]
  },
  "resource_config" : {
    "executor_number" : 2,
    "driver_resource_spec" : {
      "cpu" : 2000,
      "memory" : 4096
    },
    "executor_resource_spec" : {
      "cpu" : 2000,
      "memory" : 4096
    }
  }
}
```

- Response example:

```
{
      "job_id": "1ee7d9db-90ec-xxxx-xxxx-0de936dade77"
}
```

Querying the Status of a Spark Job

Call the API for obtaining the Spark job status. Wait until the job status changes to **SUCCEED**, indicating that the job execution is complete.

- Request example:

  GET /v2/workspaces/{workspace_id}/spark-jobs/{job_id}/state

  – *{workspace_id}*: Workspace ID, which is used for resource isolation.

  – *{job_id}*: Value of **job_id** in the response for **Starting a Spark Job**.

- Response example:

```
{
      "job_id": "1ee7d9db-90ec-xxxx-xxxx-0de936dade77",
      "state": "SUCCEED"
}
```

Viewing Spark Job Details

Call the API for viewing Spark job details to view the complete configuration and execution result of a job.

- Request example:

  GET /v2/workspaces/{workspace_id}/spark-jobs/{job_id}

  – *{workspace_id}*: Workspace ID, which is used for resource isolation.

  – *{job_id}*: Value of **job_id** in the response for **Starting a Spark Job**.

- Response example:

```
{
  "job_id" : "1ee7d9db-90ec-xxxx-xxxx-0de936dade77",
```

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```
"client_token" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx",
"name" : "spark-jar-job-example",
"endpoint_name" : "spark-endpoint",
"state" : "SUCCEED",
"job_config" : {
  "type" : "spark_jar_job",
  "main_class" : "com.example.SparkJobDriver",
  "main_jar" : "obs://bucket/path/job.jar",
  "main_args" : [ "--input", "obs://bucket/input", "--output", "obs://bucket/output" ]
},
"resource_config" : {
  "executor_number" : 2,
  "driver_resource_spec" : {
    "cpu" : 2000,
    "memory" : 4096
  },
  "executor_resource_spec" : {
    "cpu" : 2000,
    "memory" : 4096
  }
},
"create_time" : 1698776400000,
"start_time" : 1698776450000,
"end_time" : 1698776700000,
"create_user" : {
  "user_id" : "user123",
  "user_name" : "admin"
},
"log_url" : "https://obs.example.com/logs/spark-job.log"
}
```


Canceling Spark Job Execution

If a job needs to be terminated due to an execution exception, call the API for canceling Spark jobs to cancel the job that is being executed. Only jobs in the **QUEUED** or **RUNNING** state can be canceled.

- Request example:

  POST /v2/workspaces/{workspace_id}/spark-jobs/{job_id}/cancel

  - *{workspace_id}*: Workspace ID, which is used for resource isolation.
  - *{job_id}*: Value of **job_id** in the response for **Starting a Spark Job**.
- Example response: No response body. HTTP status code 204 indicates that the cancellation is successful.

4.7 Using the FlinkJob API

Overview

This section describes how to execute a Flink job by calling APIs, including starting a Flink job, querying the job status, and querying the details of a Flink job.

This process assumes that the end tenant has been authorized on the console to use AI DataLake and has created a workspace and a Flink endpoint. For how to call this API, see **Calling an API**.

Prerequisites

- *workspace_id*: Workspace ID, which can be viewed on the workspace management page of the console.

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- *endpoint_name*: Flink endpoint name, which can be viewed on the endpoint management page of the console or obtained by referring to **Listing All Endpoints**.

Starting a Flink Job

Call the API for starting a Flink job to submit the Flink job and record the job ID returned by the API.

- Request example

  POST /v2/workspaces/{workspace_id}/flink-jobs

  {workspace_id}: Workspace ID, which is used for resource isolation.

- Request body:

```
{
    "name": "flink-job-test",
    "endpoint_name": "flink-test",
    "execution_mode": "STREAMING",
    "resource_config": {
        "parallelism": 1,
        "jobmanager_resource_spec": {
            "cpu": 500,
            "memory": 1024,
            "disk": 30
        },
        "taskmanager_resource_spec": {
            "cpu": 500,
            "memory": 1024,
            "disk": 30
        }
    },
    "job_config": {
        "type": "FLINK_JAR_JOB",
        "main_jar": "obs://infotest/flink/jars/WindowJoin.jar",
        "main_class": "org.apache.flink.streaming.examples.join.WindowJoin",
        "main_args": [
            "--output",
            "/tmp/result.txt"
        ]
    },
    "logging_config": {
        "root_logger_level": "INFO"
    },
    "flink_config": {
        "taskmanager.memory.framework.heap.size": "64mb",
        "taskmanager.memory.framework.off-heap.size": "64mb",
        "taskmanager.memory.managed.fraction": "0.2",
        "taskmanager.memory.network.min": "32mb",
        "taskmanager.memory.network.max": "64mb"
    }
}
```

- Response example:

```
{
    "job_id": "019fa293-6a76-xxxx-xxxx-10e8fc29bba9"
}
```

Querying the Status of a Flink Job

Call the API for obtaining the Flink job status. Wait until the job status changes to **SUCCEED**, indicating that the job execution is complete.

- Request example:

  GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/state

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  - *{workspace_id}*: Workspace ID, which is used for resource isolation.
  - *{job_id}*: Value of **job_id** in the response for **Starting a Flink Job**.
- Response example:

```
{
    "job_id": "019fa293-6a76-xxxx-xxxx-10e8fc29bba9",
    "state": "SUCCEED"
}
```

Querying Flink Job Details

Call the API for viewing Flink job details to view the complete configuration and execution result of a job.

- Request example:

  GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}
  - *{workspace_id}*: Workspace ID, which is used for resource isolation.
  - *{job_id}*: Value of **job_id** in the response for **Starting a Flink Job**.
- Response example:

```
{
  "job_id": "019fa293-6a76-xxxx-xxxx-10e8fc29bba9",
  "client_token": "019fa293-6a76-xxxx-xxxx-1fdfa6b993a4",
  "name": "flink-job-test",
  "endpoint_name": "flink-test",
  "status": {
    "state": "SUCCEED"
  },
  "job_agency": "ai_datalake_alpha_admin_trust",
  "obs_bucket_name": "ai4db",
  "job_config": {
    "type": "FLINK_JAR_JOB",
    "main_jar": "obs://infotest/flink/jars/WindowJoin.jar",
    "main_class": "org.apache.flink.streaming.examples.join.WindowJoin",
    "main_args": [
      "--output",
      "/tmp/result.txt"
    ]
  },
  "resource_config": {
    "parallelism": 1,
    "jobmanager_resource_spec": {
      "cpu": 500,
      "memory": 1024,
      "disk": 30
    },
    "taskmanager_resource_spec": {
      "cpu": 500,
      "memory": 1024,
      "disk": 30
    }
  },
  "flink_config": {
    "high-availability.storageDir": "obs://ai4db/AIDataLake/Workspace_57fd5733-20b4-xxxx-xxxx-c6e7f39b1891/Flink/Endpoint_bd0f32d1-25aa-461e-xxxx-78daa554dd5c/jobs/ha/019fa293-6a76-xxxx-xxxx-10e8fc29bba9",
    "taskmanager.memory.framework.off-heap.size": "64mb",
    "taskmanager.memory.network.max": "64mb",
    "execution.checkpointing.savepoint-dir": "obs://ai4db/AIDataLake/Workspace_57fd5733-20b4-xxxx-xxxx-c6e7f39b1891/Flink/Endpoint_bd0f32d1-25aa-461e-xxxx-78daa554dd5c/jobs/savepoint/019fa293-6a76-xxxx-xxxx-10e8fc29bba9",
    "taskmanager.memory.network.min": "32mb",
    "taskmanager.memory.framework.heap.size": "64mb",
    "taskmanager.memory.managed.fraction": "0.2",
    "execution.checkpointing.num-retained": "6",
    "execution.checkpointing.dir": "obs://ai4db/AIDataLake/Workspace_57fd5733-20b4-xxxx-xxxx-
```

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```
c6e7f39b1891/Flink/Endpoint_bd0f32d1-25aa-461e-xxxx-78daa554dd5c/jobs/checkpoint/
019fa293-6a76-xxxx-xxxx-10e8fc29bba9"
    },
    "execution_mode": "STREAMING",
    "restore_strategy": {
        "restore_type": "NONE"
    },
    "logging_config": {
        "root_logger_level": "INFO"
    },
    "metric": {
        "total_memory": 1948,
        "total_cpu": 900,
        "total_disk": -1
    },
    "create_time": 1785138997878,
    "create_user": {
        "user_id": "019e19fb78887b57bxxxxxxxxcd5a002",
        "user_name": "aid_developer03"
    },
    "update_time": 1785138997878,
    "update_user": {
        "user_id": "019e19fb78887b57bxxxxxxxxcd5a002",
        "user_name": "aid_developer03"
    },
    "log_url": "obs://ai4db/AIDataLake/Workspace_57fd5733-20b4-xxxx-xxxx-c6e7f39b1891/Flink/
Endpoint_bd0f32d1-25aa-461e-xxxx-78daa554dd5c/jobs/log/019fa293-6a76-7a9f-xxxx-10e8fc29bba9",
    "description": "",
    "start_time": 1785139107050,
    "end_time": 0
}
```


Canceling Flink Job Execution

If a job needs to be terminated due to an execution exception, call the API for canceling Flink jobs to cancel the job that is being executed. Only jobs in the **QUEUED** or **RUNNING** state can be canceled.

- Request example:

  POST /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/cancel

  - *{workspace_id}*: Workspace ID, which is used for resource isolation.
  - *{job_id}*: Value of **job_id** in the response for **Starting a Flink Job**.
- Example response: No response body. HTTP status code 204 indicates that the cancellation is successful.

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5 Aura APIs

5.1 AuraSQL Job Management

5.1.1 Creating a Session

Function

Create a SQL session on an endpoint.

This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/workspaces/{workspace_id}/aura-sessions

Table 5-1 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Request Parameters

Table 5-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Table 5-3 Request body parameters

Parameter	Mandatory	Type	Description
endpoint_name	Yes	String	**Definition**: Endpoint name. **Constraints**: N/A **Range**: 1 to 128 characters. Only letters, digits, periods (.), underscores (_), hyphens (-), and spaces are allowed. **Default Value**: N/A
agency_name	No	String	**Definition**: Agency name. **Constraints**: For details, see **Configuring an Aura Agency**. **Range**: N/A **Default Value**: N/A
catalog_context	Yes	**CatalogContext** object	**Definition**: LakeFormation information. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
wait_timeout	No	Integer	**Definition**: Waiting time for creating a session, in seconds. **Constraints**: N/A **Range**: 300 to 86,400. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
max_retry_times	No	Integer	**Definition**: Number of retry attempts when resources are insufficient. **Constraints**: N/A **Range**: 1 to 2,147,483,647. **Default Value**: N/A
priority	No	Integer	**Definition**: Priority. The value range is 1 to 9, where 9 indicates the highest priority. **Constraints**: N/A **Range**: 1 to 9. **Default Value**: **5**
cpu	No	Long	**Definition**: CPU resources of the compute node (CN) specified for the session, in millicores. **Constraints**: Optional. If not passed, the global configuration **getCnCpuLimit** is used as the fallback. This field is not consumed in **INNER_SESSION**/maintenance statement scenarios, where the resource specification is inherited from the parent session CN. The upper limit is 48,000 millicores (48 cores). Values exceeding this limit will result in a 400 INVALID_PARAMETER error. **Range**: (0, 48,000] millicores. **Default Value**: If not passed, the global configuration fallback value (for example, 4,000 millicores) is used.

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Parameter	Mandatory	Type	Description
memory	No	Long	**Definition**: Memory resources of the compute node (CN) specified for the session, in MB. **Constraints**: Optional. If not passed, the global configuration **getCnMemoryLimit** is used as the fallback. This field is not consumed in **INNER_SESSION**/maintenance statement scenarios, where the resource specification is inherited from the parent session CN. The upper limit is 393,216 MB (384 GB). Values exceeding this limit will result in a 400 INVALID_PARAMETER error. **Range**: (0, 393,216] MB. **Default Value**: If not passed, the global configuration fallback value (for example, 16,384 MB) is used.

Table 5-4 CatalogContext

Parameter	Mandatory	Type	Description
catalog_name	Yes	String	**Definition**: LakeFormation catalog name. **Constraints**: N/A **Range**: 1 to 255 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Response Parameters

Status code: 200

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Table 5-5 Response body parameters

Parameter	Type	Description
session_id	String	**Definition**: Session ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
status	String	**Definition**: Session status. **Range** • **RUNNING**: Running. • **CLOSED**: Closed. • **WAITING**: Waiting. • **CREATING**: Creating. • **FAIL**: Failed.
cpu	Integer	**Definition**: CPU resource size (millicores).
memory	Integer	**Definition**: Memory resource size (MB).

Status code: 400

Table 5-6 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 401

Table 5-7 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 403

Table 5-8 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 404

Table 5-9 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 408

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Table 5-10 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 500

Table 5-11 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Example Requests

Request example for creating a SQL session in a specified workspace and endpoint.

```
POST /v2/workspaces/{workspace_id}/aura-sessions

{
  "endpoint_name" : "aura_endpoint",
  "catalog_context" : {
    "catalog_name" : "catalog_default"
  }
}
```

Example Responses

Status code: 200

```
{
  "session_id" : "ac8111bf-3601-4905-8ddd-b41d3e636a4e",
  "status" : "RUNNING"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00092031",
```

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```
  "error_msg" : "Invalid parameter name",
  "solution_msg" : "Please enter parameters in the correct format."
}
```

Status code: 401

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed.",
  "solution_msg" : "Please obtain a valid token and retry."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00090030",
  "error_msg" : "Unauthorized requests.",
  "solution_msg" : "Check permissions and retry after authorization."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00090009",
  "error_msg" : "The resource does not exists.",
  "solution_msg" : "Please try to use correct info."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "A timeout exception occurred.",
  "solution_msg" : "The request timed out while waiting for a response — check the backend service status and network, then retry; if the operation is long-running, increase the client timeout or split the request."
}
```

Status code: 500

```
{
  "error_code" : "common.00000500",
  "error_msg" : "internal error",
  "solution_msg" : "An internal service error occurred. Please retry later; if the problem persists, contact technical support."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request.
401	Unauthorized.
403	Request denied.
404	The requested resource could not be found.
408	Request timeout.
500	Internal server error.

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5.1.2 Listing Sessions

Function

This API is used to list SQL sessions.

This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/aura-sessions

Table 5-12 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Table 5-13 Query Parameters

Parameter	Mandatory	Type	Description
endpoint_name	Yes	String	**Definition**: Endpoint name, used to filter endpoints by name. **Constraints**: N/A **Range**: 1 to 128 characters. Only letters, digits, periods (.), underscores (_), hyphens (-), and spaces are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
session_id	No	String	**Definition**: Session ID. You can obtain the session ID by calling the **Listing Sessions** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
status	No	String	**Definition**: Status filter. Only one status can be queried at a time. **Constraints**: N/A **Range** • **RUNNING**: Running. • **CLOSED**: Closed. • **WAITING**: Waiting. • **CREATING**: Creating. • **FAIL**: Failed. **Default Value**: N/A
start_time_before	No	Integer	**Definition**: Queries records whose start time is earlier than or equal to this timestamp, in seconds. **Constraints**: N/A **Range**: 1 to 2,147,483,647. **Default Value**: N/A
start_time_after	No	Integer	**Definition**: Queries records whose start time is later than or equal to this timestamp, in seconds. **Constraints**: N/A **Range**: 1 to 2,147,483,647. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
marker	No	String	**Definition**: ID of the last record on the previous page. Pass an empty value for the first page query. **Constraints**: N/A **Range**: 1 to 64 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed. **Default Value**: N/A
limit	No	Integer	**Definition**: Maximum number of records returned per page. **Constraints**: N/A **Range**: 1 to 100. **Default Value**: **10**.

Request Parameters

Table 5-14 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Response Parameters

Status code: 200

Table 5-15 Response body parameters

Parameter	Type	Description
next_marker	String	**Definition**: Marker value for the next page query. An empty value indicates the current page is the last. **Range**: N/A

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Parameter	Type	Description
total	Integer	**Definition**: Total number of sessions in the current workspace. **Range**: 0 to 2,147,483,647.
sessions	Array of **SqlSessionInfo** objects	**Definition**: Session list.

Table 5-16 SqlSessionInfo

Parameter	Type	Description
session_id	String	**Definition**: Session ID. You can obtain the session ID by calling the **Listing Sessions** API. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
status	String	**Definition**: SQL session status. **Range** • **RUNNING**: Running. • **CLOSED**: Closed. • **WAITING**: Waiting. • **CREATING**: Creating. • **FAIL**: Failed.
create_time	String	**Definition**: Creation time, in ISO 8601 standard format. For example, 2023-05-30T12:24:30.401Z. **Range**: N/A
endpoint_info	**endpoint_info** object	**Definition**: Endpoint information.
error	**ErrorMessage** object	**Definition**: Error object returned on failure, including the error code, error description, and solution. **Range**: N/A
start_time	String	**Definition**: Start time. **Range**: N/A

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Table 5-17 endpoint_info

Parameter	Type	Description
id	String	**Definition**: Endpoint ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: Endpoint name. **Range**: 1 to 128 characters. Only letters, digits, periods (.), underscores (_), hyphens (-), and spaces are allowed.

Table 5-18 ErrorMessage

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 400

Table 5-19 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 401

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Table 5-20 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 403

Table 5-21 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 404

Table 5-22 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 408

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Table 5-23 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 500

Table 5-24 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Example Requests

List sessions.

```
GET /v2/workspaces/{workspace_id}/aura-sessions
```

Example Responses

Status code: 200

```
{
  "sessions" : [ {
    "session_id" : "284888e2-c36f-4bec-9b24-e5bf0b386ab0",
    "status" : "RUNNING",
    "create_time" : "2025-07-22T08:42:39.000+00:00",
    "endpoint_info" : {
      "id" : "0470d220-aaaa-410e-a417-0d69a0215683",
      "name" : "test2"
    }
  }, {
    "session_id" : "4e4b2770-702f-48b7-9737-db107cf63e24",
    "status" : "CLOSED",
    "create_time" : "2025-07-22T06:13:47.000+00:00",
    "endpoint_info" : {
      "id" : "0470d220-aaaa-410e-a417-0d69a0215683",
      "name" : "test2"
```

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```
    }
  } ],
  "total" : 2,
  "next_marker" : null
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00092031",
  "error_msg" : "Invalid parameter name",
  "solution_msg" : "Please enter parameters in the correct format."
}
```

Status code: 401

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed.",
  "solution_msg" : "Please obtain a valid token and retry."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00090030",
  "error_msg" : "Unauthorized requests.",
  "solution_msg" : "Check permissions and retry after authorization."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00090009",
  "error_msg" : "The resource does not exists.",
  "solution_msg" : "Please try to use correct info."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "A timeout exception occurred.",
  "solution_msg" : "The request timed out while waiting for a response — check the backend service status and network, then retry; if the operation is long-running, increase the client timeout or split the request."
}
```

Status code: 500

```
{
  "error_code" : "common.00000500",
  "error_msg" : "internal error",
  "solution_msg" : "An internal service error occurred. Please retry later; if the problem persists, contact technical support."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request.
401	Unauthorized.

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Status Code	Description
403	Request denied.
404	The requested resource could not be found.
408	Request timeout.
500	Internal server error.

5.1.3 Viewing Details of a Session

Function

This API is used to query a SQL session.

This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/aura-sessions/{session_id}

Table 5-25 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
session_id	Yes	String	**Definition**: Session ID. You can obtain the session ID by calling the **Listing Sessions** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Request Parameters

Table 5-26 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Response Parameters

Status code: 200

Table 5-27 Response body parameters

Parameter	Type	Description
session_id	String	**Definition**: Session ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
status	String	**Definition**: Session status. **Range** • **RUNNING**: Running. • **CLOSED**: Closed. • **WAITING**: Waiting. • **CREATING**: Creating. • **FAIL**: Failed.
cpu	Integer	**Definition**: CPU resource size (millicores).
memory	Integer	**Definition**: Memory resource size (MB).

Status code: 400

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Table 5-28 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 401

Table 5-29 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 403

Table 5-30 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 404

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Table 5-31 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 408

Table 5-32 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 500

Table 5-33 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Example Requests

Query details of a SQL session.

```
GET /v2/workspaces/{workspace_id}/aura-sessions/{session_id}
```

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Example Responses

Status code: 200

```
{
  "session_id" : "ac8111bf-3601-4905-8ddd-b41d3e636a4e",
  "status" : "RUNNING"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00092031",
  "error_msg" : "Invalid parameter name",
  "solution_msg" : "Please enter parameters in the correct format."
}
```

Status code: 401

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed.",
  "solution_msg" : "Please obtain a valid token and retry."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00090030",
  "error_msg" : "Unauthorized requests.",
  "solution_msg" : "Check permissions and retry after authorization."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00090009",
  "error_msg" : "The resource does not exists.",
  "solution_msg" : "Please try to use correct info."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "A timeout exception occurred.",
  "solution_msg" : "The request timed out while waiting for a response — check the backend service status and network, then retry; if the operation is long-running, increase the client timeout or split the request."
}
```

Status code: 500

```
{
  "error_code" : "common.00000500",
  "error_msg" : "internal error",
  "solution_msg" : "An internal service error occurred. Please retry later; if the problem persists, contact technical support."
}
```

Status Codes

Status Code	Description
200	Request succeeded.

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Status Code	Description
400	Invalid request.
401	Unauthorized.
403	Request denied.
404	The requested resource could not be found.
408	Request timeout.
500	Internal server error.

5.1.4 Deleting a Session

Function

This API is used to close a SQL session.

This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/workspaces/{workspace_id}/aura-sessions/{session_id}

Table 5-34 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
session_id	Yes	String	**Definition**: Session ID. You can obtain the session ID by calling the **Listing Sessions** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Request Parameters

Table 5-35 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Response Parameters

Status code: 204

Table 5-36 Response body parameters

Parameter	Type	Description
-	AnyType	Succeeded.

Status code: 400

Table 5-37 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 401

Table 5-38 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 403

Table 5-39 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 404

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Table 5-40 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 408

Table 5-41 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 500

Table 5-42 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Example Requests

Request example for closing a specified SQL session by **session_id**.

```
DELETE /v2/workspaces/{workspace_id}/aura-sessions/{session_id}
```

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Example Responses

Status code: 204

None

Status code: 400

```
{
  "error_code" : "AIDataLake.00092031",
  "error_msg" : "Invalid parameter name",
  "solution_msg" : "Please enter parameters in the correct format."
}
```

Status code: 401

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed.",
  "solution_msg" : "Please obtain a valid token and retry."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00090030",
  "error_msg" : "Unauthorized requests.",
  "solution_msg" : "Check permissions and retry after authorization."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00090009",
  "error_msg" : "The resource does not exists.",
  "solution_msg" : "Please try to use correct info."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "A timeout exception occurred.",
  "solution_msg" : "The request timed out while waiting for a response — check the backend service status and network, then retry; if the operation is long-running, increase the client timeout or split the request."
}
```

Status code: 500

```
{
  "error_code" : "common.00000500",
  "error_msg" : "internal error",
  "solution_msg" : "An internal service error occurred. Please retry later; if the problem persists, contact technical support."
}
```

Status Codes

Status Code	Description
204	Succeeded.
400	Invalid request.
401	Unauthorized.

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Status Code	Description
403	Request denied.
404	The requested resource could not be found.
408	Request timeout.
500	Internal server error.

5.1.5 Executing SQL Statements Under a Specified Session

Function

This API is used to execute SQL statements under a specified session.

This API supports both synchronous and asynchronous execution modes, determined by the input parameter **is_sync**. For asynchronous execution, use the **Viewing SQL Execution Results** API to query the result.

For synchronous execution, the API waits to receive the result. If execution is complete, the result is returned. If not, a running status is returned, and you can use the **Viewing SQL Execution Results** API to query the result.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/workspaces/{workspace_id}/aura-sessions/statements

Table 5-43 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Request Parameters

Table 5-44 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Table 5-45 Request body parameters

Parameter	Mandatory	Type	Description
session_id	Yes	String	**Definition**: Session ID. You can obtain the session ID by calling the **Listing Sessions** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
statement	Yes	String	**Definition**: SQL statement. **Constraints**: N/A **Range**: 1 to 10,000,000 characters. **Default Value**: N/A
limit	No	Integer	**Definition**: Maximum number of rows to return in the result set. **Constraints**: N/A **Range**: 1 to 2,147,483,647, in rows. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
bindings	No	Array<Array<String>>	**Definition**: Parameter binding list for SQL statements, used for bound variable passing. The outer array is the binding set (only bindings[0] is used in practice). The inner array is the parameter value list for a single SQL statement, where each string element represents a single parameter value. **Constraints** • Elements in the outer array: 0 to 1. • Elements in the inner array: 0 to 200. • Each parameter value string length: 0 to 500 characters. **Range**: N/A **Default Value**: N/A
is_sync	No	Boolean	**Definition**: Whether an execution is synchronous or asynchronous. **Constraints**: N/A **Range** • **true**: Synchronous. • **false**: Asynchronous. **Default Value**: **true** (sync by default if not specified).
resultset_fetch_mode	No	String	**Definition**: Method for retrieving the result set. **Constraints**: N/A **Range** • **DEFAULT**: Return the result set directly. • **READ_OBS**: Return the path of the result set on the bucket, instead of returning the result set itself. **Default Value**: **DEFAULT**.

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Parameter	Mandatory	Type	Description
wait_timeout	No	Integer	**Definition**: SQL queue wait timeout, in seconds. **Constraints**: N/A **Range**: 300 to 86,400. **Default Value**: N/A
max_retry_times	No	Integer	**Definition**: Number of retry attempts when resources are insufficient. **Constraints**: N/A **Range**: 1 to 6,000. **Default Value**: N/A
statement_type	No	String	**Definition**: Job type. **Constraints**: N/A **Range** • **SQL**: SQL query. • **JOB**: Job. **Default Value**: **SQL**
statement_name	No	String	**Definition**: Job name. **Constraints**: Up to 64 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed. **Range**: N/A **Default Value**: N/A

Response Parameters

Status code: 200

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Table 5-46 Response body parameters

Parameter	Type	Description
status	Integer	**Definition**: Statement status. **Range** • **0**: Succeeded. • **-1**: Failed. • **1**: Executing. • **2**: Execution completed with no result set. • **3**: Queued and waiting. • **4**: Statement not executed properly.
session_id	String	**Definition**: Session ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
statement_id	String	**Definition**: Statement ID. **Range**: 1 to 36 characters. Only letters, digits, and underscores (_) are allowed.
results	Array of **results** objects	**Definition**: List of statement execution results, returned in the order of execution.

Table 5-47 results

Parameter	Type	Description
status	String	**Definition**: SQL execution result status. **Range**: **PGRES_TUPLES_OK** (query successful with result set), **PGRES_COMMAND_OK** (command executed successfully without result set), **PGRES_FATAL_ERROR** (query failure).
statement_id	String	**Definition**: Unique identifier of this statement execution. **Range**: UUID.
num_rows	Long	**Definition**: Number of rows in the result set. **Range**: N/A
row_count	Long	**Definition**: Number of affected rows. **Range**: N/A

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Parameter	Type	Description
page_count	Integer	**Definition**: Total number of pages. **Range**: N/A
page_no	Integer	**Definition**: Current page number. **Range**: N/A
err_code	String	**Definition**: Error code. **Range**: **0** (success).
sql_state	String	**Definition**: SQL status code. **Range**: N/A
message	String	**Definition**: Execution message.
result_set	**result_set** object	**Definition**: Result set. Contains valid data only when the query succeeds (**PGRES_TUPLES_OK**). Otherwise, it is an empty object {}.

Table 5-48 result_set

Parameter	Type	Description
columns	Array of **columns** objects	**Definition**: Column metadata list.
rows	Array<Array<String>>	**Definition**: Actual data rows. The order of each row corresponds to the columns.

Table 5-49 columns

Parameter	Type	Description
name	String	**Definition**: Column name. **Range**: 1 to 64 characters.
table_id	Integer	**Definition**: Table ID.
column_id	Integer	**Definition**: Column ID.
format	Integer	**Definition**: Format.
type	Integer	**Definition**: Column type OID.
size	Integer	**Definition**: Column size.
type_mod	Integer	**Definition**: Type modifier.

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Status code: 400

Table 5-50 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 401

Table 5-51 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 403

Table 5-52 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 404

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Table 5-53 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 408

Table 5-54 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 500

Table 5-55 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Example Requests

Execute SQL statements under a specified session.

```
POST /v2/workspaces/{workspace_id}/aura-sessions/statements
```

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```
{
  "statement" : "select * from aaa",
  "limit" : 100,
  "session_id" : "6399466e-8908-xxxx-xxxx-48479c8b06f7",
  "bindings" : [ [ "string" ] ],
  "resultset_fetch_mode" : "DEFAULT",
  "is_sync" : true
}
```

Example Responses

Status code: 200

```
{
  "status" : 0,
  "session_id" : "6399466e-8908-4c9d-8399-48479c8b06f7",
  "statement_id" : "49131d25-1824-4f29-860c-832bdd19dfd3",
  "results" : [ {
    "status" : "PGRES_TUPLES_OK",
    "statement_id" : "49131d25-1824-4f29-860c-832bdd19dfd3",
    "num_rows" : 1,
    "row_count" : 1,
    "page_count" : 1,
    "page_no" : 1,
    "err_code" : "0",
    "sql_state" : "0",
    "message" : "CREATE SCHEMA",
    "result_set" : {
      "columns" : [ {
        "name" : "a",
        "table_id" : 0,
        "column_id" : 1,
        "format" : 0,
        "type" : 23,
        "size" : 4,
        "type_mod" : -1
      } ],
      "rows" : [ [ "1" ] ]
    }
  } ]
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00092031",
  "error_msg" : "Invalid parameter name",
  "solution_msg" : "Please enter parameters in the correct format."
}
```

Status code: 401

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed.",
  "solution_msg" : "Please obtain a valid token and retry."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00090030",
  "error_msg" : "Unauthorized requests.",
  "solution_msg" : "Check permissions and retry after authorization."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00090009",
```

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```
  "error_msg" : "The resource does not exists.",
  "solution_msg" : "Please try to use correct info."
}
```


Status code: 408


```
{
  "error_code" : "common.00000408",
  "error_msg" : "A timeout exception occurred.",
  "solution_msg" : "The request timed out while waiting for a response — check the backend service status and network, then retry; if the operation is long-running, increase the client timeout or split the request."
}
```


Status code: 500


```
{
  "error_code" : "common.00000500",
  "error_msg" : "internal error",
  "solution_msg" : "An internal service error occurred. Please retry later; if the problem persists, contact technical support."
}
```


Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request.
401	Unauthorized.
403	Request denied.
404	The requested resource could not be found.
408	Request timeout.
500	Internal server error.

5.1.6 Viewing the Execution Result of a SQL Statement

Function

Query the execution result of a SQL statement.

This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/aura-sessions/{session_id}/statements/{statement_id}

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Table 5-56 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
session_id	Yes	String	**Definition**: Session ID. You can obtain the session ID by calling the **Listing Sessions** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
statement_id	Yes	String	**Definition**: Statement ID, which can be obtained by calling the **Viewing SQL Execution Records Under a Specified Session** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed. **Default Value**: N/A

Table 5-57 Query Parameters

Parameter	Mandatory	Type	Description
page_num	No	Integer	**Definition**: Query page number. **Constraints**: N/A **Range**: 1 to 2147483647. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
is_enable_obs_path	No	Boolean	**Definition**: Whether to return the OBS path of a result set. **Constraints**: N/A **Range** • **true**: Result the OBS path of the result set. • **false**: Return the result set. **Default Value**: N/A

Request Parameters

Table 5-58 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Response Parameters

Status code: 200

Table 5-59 Response body parameters

Parameter	Type	Description
status	Integer	**Definition**: Statement status. **Range** • **0**: Succeeded. • **-1**: Failed. • **1**: Executing. • **2**: Execution completed with no result set. • **3**: Queued and waiting. • **4**: Statement not executed properly.

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Parameter	Type	Description
session_id	String	**Definition**: Session ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
statement_id	String	**Definition**: Statement ID. **Range**: 1 to 36 characters. Only letters, digits, and underscores (_) are allowed.
results	Array of **results** objects	**Definition**: List of statement execution results, returned in the order of execution.

Table 5-60 results

Parameter	Type	Description
status	String	**Definition**: SQL execution result status. **Range**: **PGRES_TUPLES_OK** (query successful with result set), **PGRES_COMMAND_OK** (command executed successfully without result set), **PGRES_FATAL_ERROR** (query failure).
statement_id	String	**Definition**: Unique identifier of this statement execution. **Range**: UUID.
num_rows	Long	**Definition**: Number of rows in the result set. **Range**: N/A
row_count	Long	**Definition**: Number of affected rows. **Range**: N/A
page_count	Integer	**Definition**: Total number of pages. **Range**: N/A
page_no	Integer	**Definition**: Current page number. **Range**: N/A
err_code	String	**Definition**: Error code. **Range**: **0** (success).
sql_state	String	**Definition**: SQL status code. **Range**: N/A
message	String	**Definition**: Execution message.

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Parameter	Type	Description
result_set	**result_set** object	**Definition**: Result set. Contains valid data only when the query succeeds (**PGRES_TUPLES_OK**). Otherwise, it is an empty object {}.

Table 5-61 result_set

Parameter	Type	Description
columns	Array of **columns** objects	**Definition**: Column metadata list.
rows	Array<Array<String>>	**Definition**: Actual data rows. The order of each row corresponds to the columns.

Table 5-62 columns

Parameter	Type	Description
name	String	**Definition**: Column name. **Range**: 1 to 64 characters.
table_id	Integer	**Definition**: Table ID.
column_id	Integer	**Definition**: Column ID.
format	Integer	**Definition**: Format.
type	Integer	**Definition**: Column type OID.
size	Integer	**Definition**: Column size.
type_mod	Integer	**Definition**: Type modifier.

Status code: 400

Table 5-63 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.

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Parameter	Type	Description
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 401

Table 5-64 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 403

Table 5-65 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 404

Table 5-66 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 408

Table 5-67 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 500

Table 5-68 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Example Requests

Query the execution result of a SQL statement.

```
GET /v2/workspaces/{workspace_id}/aura-sessions/{session_id}/statements/{statement_id}
```

Example Responses

Status code: 200

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```
{
  "status" : 0,
  "session_id" : "6399466e-8908-4c9d-8399-48479c8b06f7",
  "statement_id" : "49131d25-1824-4f29-860c-832bdd19dfd3",
  "results" : [ {
    "status" : "PGRES_TUPLES_OK",
    "statement_id" : "49131d25-1824-4f29-860c-832bdd19dfd3",
    "num_rows" : 2,
    "row_count" : 2,
    "page_count" : 1,
    "page_no" : 1,
    "err_code" : "0",
    "sql_state" : "0",
    "message" : "",
    "result_set" : {
      "columns" : [ {
        "name" : "a",
        "table_id" : 2147483647,
        "column_id" : 1,
        "format" : 0,
        "type" : 23,
        "size" : 4,
        "type_mod" : -1
      }, {
        "name" : "b",
        "table_id" : 2147483647,
        "column_id" : 2,
        "format" : 0,
        "type" : 23,
        "size" : 4,
        "type_mod" : -1
      } ],
      "rows" : [ [ "1", "2" ], [ "1", "2" ] ]
    }
  } ]
}
```


Status code: 400


```
{
  "error_code" : "AIDataLake.00092031",
  "error_msg" : "Invalid parameter name",
  "solution_msg" : "Please enter parameters in the correct format."
}
```


Status code: 401


```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed.",
  "solution_msg" : "Please obtain a valid token and retry."
}
```


Status code: 403


```
{
  "error_code" : "AIDataLake.00090030",
  "error_msg" : "Unauthorized requests.",
  "solution_msg" : "Check permissions and retry after authorization."
}
```


Status code: 404


```
{
  "error_code" : "AIDataLake.00090009",
  "error_msg" : "The resource does not exists.",
  "solution_msg" : "Please try to use correct info."
}
```


Status code: 408

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{
  "error_code" : "common.00000408",
  "error_msg" : "A timeout exception occurred.",
  "solution_msg" : "The request timed out while waiting for a response — check the backend service status and network, then retry; if the operation is long-running, increase the client timeout or split the request."
}

Status code: 500

{
  "error_code" : "common.00000500",
  "error_msg" : "internal error",
  "solution_msg" : "An internal service error occurred. Please retry later; if the problem persists, contact technical support."
}

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request.
401	Unauthorized.
403	Request denied.
404	The requested resource could not be found.
408	Request timeout.
500	Internal server error.

5.1.7 Canceling the Execution of a SQL Statement

Function

This API is used to cancel the execution of an SQL statement. This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/workspaces/{workspace_id}/aura-sessions/{session_id}/statements/{statement_id}/cancel

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Table 5-69 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
session_id	Yes	String	**Definition**: Session ID. You can obtain the session ID by calling the **Listing Sessions** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
statement_id	Yes	String	**Definition**: Statement ID, which can be obtained by calling the **Viewing SQL Execution Records Under a Specified Session** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed. **Default Value**: N/A

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Request Parameters

Table 5-70 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Response Parameters

Status code: 204

Table 5-71 Response body parameters

Parameter	Type	Description
-	AnyType	Succeeded.

Status code: 400

Table 5-72 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 401

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Table 5-73 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 403

Table 5-74 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 404

Table 5-75 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 408

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Table 5-76 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 500

Table 5-77 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Example Requests

Request example for canceling a specified SQL statement by **statement_id**.

```
POST /v2/workspaces/{workspace_id}/aura-sessions/{session_id}/cancel
```

Example Responses

Status code: 204

None

Status code: 400

```
{
  "error_code" : "AIDataLake.00092031",
  "error_msg" : "Invalid parameter name",
  "solution_msg" : "Please enter parameters in the correct format."
}
```

Status code: 401

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed.",
```

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```
  "solution_msg" : "Please obtain a valid token and retry."
}
```


Status code: 403


```
{
  "error_code" : "AIDataLake.00090030",
  "error_msg" : "Unauthorized requests.",
  "solution_msg" : "Check permissions and retry after authorization."
}
```


Status code: 404


```
{
  "error_code" : "AIDataLake.00090009",
  "error_msg" : "The resource does not exists.",
  "solution_msg" : "Please try to use correct info."
}
```


Status code: 408


```
{
  "error_code" : "common.00000408",
  "error_msg" : "A timeout exception occurred.",
  "solution_msg" : "The request timed out while waiting for a response — check the backend service status and network, then retry; if the operation is long-running, increase the client timeout or split the request."
}
```


Status code: 500


```
{
  "error_code" : "common.00000500",
  "error_msg" : "internal error",
  "solution_msg" : "An internal service error occurred. Please retry later; if the problem persists, contact technical support."
}
```


Status Codes

Status Code	Description
204	Succeeded.
400	Invalid request.
401	Unauthorized.
403	Request denied.
404	The requested resource could not be found.
408	Request timeout.
500	Internal server error.

5.1.8 Viewing SQL Execution Records

Function

This API is used to query SQL execution records.

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This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/aura-statement-records

Table 5-78 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Table 5-79 Query Parameters

Parameter	Mandatory	Type	Description
endpoint_name	Yes	String	**Definition**: Endpoint name, used to filter endpoints by name. **Constraints**: N/A **Range**: 1 to 128 characters. Only letters, digits, periods (.), underscores (_), hyphens (-), and spaces are allowed. **Default Value**: N/A
session_id	No	String	**Definition**: Session ID. You can obtain the session ID by calling the **Listing Sessions** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
statement_id	No	String	**Definition**: Statement ID. You can obtain the statement ID by calling the **Viewing SQL Execution Records Under a Specified Session** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed. **Default Value**: N/A
status	No	String	**Definition**: Status filtering. Only one status can be queried. By default, all statuses are queried. **Constraints**: N/A **Range** • **CANCELED**: Canceled. • **FAILED**: Failed. • **SUCCESSFUL**: Successful. • **RUNNING**: Running. • **SUBMITTED**: Submitted. • **ERROR**: Error. • **WAITING**: Waiting. **Default Value**: If not specified, all statuses are queried.
start_time_before	No	Integer	**Definition**: Queries records whose start time is earlier than or equal to this timestamp, in seconds. **Constraints**: N/A **Range**: 1 to 2,147,483,647. **Default Value**: N/A
start_time_after	No	Integer	**Definition**: Queries records whose start time is later than or equal to this timestamp, in seconds. **Constraints**: N/A **Range**: 1 to 2,147,483,647. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
marker	No	String	**Definition**: ID of the last record on the previous page. Pass an empty value for the first page query. **Constraints**: N/A **Range**: 1 to 64 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed. **Default Value**: N/A
limit	No	Integer	**Definition**: Maximum number of records returned per page. **Constraints**: N/A **Range**: 1 to 100. **Default Value**: **10**.
statement_type	No	String	**Definition**: Job type filter (**SQL**/**JOB**). If not specified, all types are returned. **Constraints**: N/A **Range**: **SQL**, **JOB**. **Default Value**: N/A

Request Parameters

Table 5-80 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Response Parameters

Status code: 200

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Table 5-81 Response body parameters

Parameter	Type	Description
current_count	Integer	**Definition**: Total number of records for this query. **Range**: 1 to 2,147,483,647.
next_marker	String	**Definition**: Marker value for the next page query. An empty value indicates the current page is the last. **Range**: 1 to 64 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.
records	Array of **StatementRecord** objects	**Definition**: List of SQL history records. Each element is a StatementRecord object, containing the statement ID, workspace ID, endpoint name, session ID, database name, SQL script content, execution duration, execution status, username, and creation time.

Table 5-82 StatementRecord

Parameter	Type	Description
id	String	**Definition**: Statement ID. **Range**: 1 to 36 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.
workspace_id	String	**Definition**: Workspace ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
endpoint_name	String	**Definition**: Endpoint name. **Range**: 1 to 128 characters. Only letters, digits, periods (.), underscores (_), hyphens (-), and spaces are allowed.
session_id	String	**Definition**: Session ID. You can obtain the session ID by calling the **Listing Sessions** API. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
database_name	String	**Definition**: Database name. **Range**: 1 to 256 characters. Only letters, digits, and underscores (_) are allowed.
statement_content	String	**Definition**: SQL script content. **Range**: 0 to 8,096 characters.
duration	String	**Definition**: Execution duration, in milliseconds. **Range**: N/A
status	String	**Definition**: SQL execution status. **Range** • **CANCELED**: Canceled. • **FAILED**: Failed. • **SUCCESSFUL**: Successful. • **RUNNING**: Running. • **SUBMITTED**: Submitted. • **ERROR**: Error. • **WAITING**: Waiting.
user_name	String	**Definition**: Username. **Range**: 1 to 64 characters. Only letters, digits, and underscores (_) are allowed.
create_time	String	**Definition**: SQL creation time, in ISO 8601 standard format. For example, 2023-05-30T12:24:30.401Z. **Range**: N/A
start_time	String	**Definition**: SQL execution start time, in ISO 8601 standard format. For example, 2023-05-30T12:24:30.401Z. **Range**: N/A
finish_time	String	**Definition**: SQL execution end time, in ISO 8601 standard format. For example, 2023-05-30T12:24:30.401Z. **Range**: N/A
tuple_processed	Long	**Definition**: Number of rows processed. Returned only for **JOB** type; returns null for **SQL** type. **Range**: N/A
statement_type	String	**Definition**: Job type (**SQL**/**JOB**). **Range**: **SQL**, **JOB**.

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Parameter	Type	Description
statement_name	String	**Definition**: Job name. **Range**: N/A
error	**ErrorMessage** object	**Definition**: Error object returned on failure, including the error code, error description, and solution. **Range**: N/A

Table 5-83 ErrorMessage

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 400

Table 5-84 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 401

Table 5-85 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 403

Table 5-86 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 404

Table 5-87 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 408

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Table 5-88 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 500

Table 5-89 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Example Requests

Query SQL execution history records.

```
GET /v2/workspaces/{workspace_id}/aura-statement-records?endpoint_name=endpoint1
```

Example Responses

Status code: 200

```
{
  "current_count" : 1,
  "next_marker" : null,
  "records" : [ {
    "id" : "0b5633ba2b904511ad514346f4dxxxxx",
    "workspace_id" : "0b5633ba2b904511ad514346f4dxxxxx",
    "session_id" : "019ff0ee-740c-7eca-b40b-f8cf38c7b6f0",
    "endpoint_name" : "endpoint_1",
    "database_name" : "db1",
    "statement_content" : "select 1",
    "duration" : "332",
    "status" : "SUCCESSFUL",
    "user_name" : "user1",
    "create_time" : "2023-05-30T12:24:30.401Z",
    "start_time" : "2023-05-30T12:24:30.401Z",
    "finish_time" : "2023-05-30T12:24:30.401Z"
```

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```
 } ]
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00092031",
  "error_msg" : "Invalid parameter name",
  "solution_msg" : "Please enter parameters in the correct format."
}
```

Status code: 401

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed.",
  "solution_msg" : "Please obtain a valid token and retry."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00090030",
  "error_msg" : "Unauthorized requests.",
  "solution_msg" : "Check permissions and retry after authorization."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00090009",
  "error_msg" : "The resource does not exists.",
  "solution_msg" : "Please try to use correct info."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "A timeout exception occurred.",
  "solution_msg" : "The request timed out while waiting for a response — check the backend service status and network, then retry; if the operation is long-running, increase the client timeout or split the request."
}
```

Status code: 500

```
{
  "error_code" : "common.00000500",
  "error_msg" : "internal error",
  "solution_msg" : "An internal service error occurred. Please retry later; if the problem persists, contact technical support."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request.
401	Unauthorized.
403	Request denied.

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Status Code	Description
404	The requested resource could not be found.
408	Request timeout.
500	Internal server error.

5.1.9 Viewing the Monitoring Details of a Statement

Function

This API is used to query statement monitoring details.

This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/aura-sessions/{session_id}/statements/{statement_id}/query-metrics

Table 5-90 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
session_id	Yes	String	**Definition**: Session ID. You can obtain the session ID by calling the **Listing Sessions** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
statement_id	Yes	String	**Definition**: Statement ID, which can be obtained by calling the **Viewing SQL Execution Records Under a Specified Session** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed. **Default Value**: N/A

Request Parameters

Table 5-91 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Response Parameters

Status code: 200

Table 5-92 Response body parameters

Parameter	Type	Description
[items]	Array of **StatementQueryMetrics** objects	**Definition**: Statement monitoring details.

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Table 5-93 StatementQueryMetrics

Parameter	Type	Description
session_id	String	**Definition**: Session ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
statement_id	String	**Definition**: Statement ID. **Range**: 1 to 36 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.
start_time	String	**Definition**: Statement start time, in ISO 8601 standard format. For example, 2026-06-13T03:32:39.386Z. **Range**: N/A
duration	Long	**Definition**: Statement running duration, in milliseconds. **Range**: N/A
schema_name	String	**Definition**: Schema name during statement execution. **Range**: N/A
query	String	**Definition**: Query statement. **Range**: N/A
query_plan	String	**Definition**: Statement plan information. **Range**: N/A
estimate_total_time	Long	**Definition**: Estimated statement running duration, in milliseconds. **Range**: N/A
estimate_left_time	Long	**Definition**: Estimated remaining statement duration, in milliseconds. **Range**: N/A
startup_coordinator_duration	Long	**Definition**: Startup duration of the coordinator node (CN), in milliseconds. **Range**: N/A
create_session_duration	Long	**Definition**: Session creation duration, in milliseconds. **Range**: N/A
enqueue_statement_duration	Long	**Definition**: Statement queue wait duration, in milliseconds. **Range**: N/A

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Parameter	Type	Description
queue_duration	Long	**Definition**: Statement queuing duration, in milliseconds. **Range**: N/A
write_resultset_duration	Long	**Definition**: Statement result set write duration, in milliseconds. **Range**: N/A
parse_time	Long	**Definition**: Pre-execution parsing time, in milliseconds. **Range**: N/A
estimate_memory	Integer	**Definition**: Estimated used memory, in MB. **Range**: N/A
status	String	**Definition**: Statement status in the Workload Manager (WLM). **Range**: N/A
error_info	String	**Definition**: Statement error information. **Range**: N/A
dn_time_skew_percent	Integer	**Definition**: Time skew percentage of data nodes (DNs), in %. **Range**: N/A
dn_max_peak_memory	Integer	**Definition**: Maximum peak memory of data nodes (DNs), in MB. **Range**: N/A
dn_average_peak_memory	Integer	**Definition**: Average peak memory of data nodes (DNs), in MB. **Range**: N/A
dn_spill_skew_percent	Integer	**Definition**: Spill skew rate of data nodes (DNs), in %. **Range**: N/A
dn_write_disk_total_size	Long	**Definition**: Total spill size of data nodes (DNs), in MB. **Range**: N/A
dn_spill_obs_total_size	Long	**Definition**: Total OBS spill size of data nodes (DNs), in MB. **Range**: N/A

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Parameter	Type	Description
cn_spill_obs_size	Long	**Definition**: OBS spill size of the coordinator node (CN), in MB. **Range**: N/A
disk_cache_hit_ratio	Number	**Definition**: Disk cache hit ratio (decimal, range 0 to 1. For example, 0.85 indicates an 85% hit rate). **Range**: 0 to 1.
obs_io_req_avg_latency	Long	**Definition**: Average latency of OBS I/O requests, in microseconds. **Range**: N/A
obs_io_req_latency_gt_1s	Long	**Definition**: Number of OBS I/O requests with latency greater than 1 second. **Range**: N/A
obs_io_req_latency_gt_10s	Long	**Definition**: Number of OBS I/O requests with latency greater than 10 seconds. **Range**: N/A

Status code: 400

Table 5-94 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 401

Table 5-95 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 403

Table 5-96 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 404

Table 5-97 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 408

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Table 5-98 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 500

Table 5-99 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Example Requests

Query statement monitoring details.

```
GET /v2/workspaces/{workspace_id}/aura-sessions/{session_id}/statements/{statement_id}/query-metrics
```

Example Responses

Status code: 200

```
[ {
  "session_id" : "019ebf09-9043-7712-b2f5-457c448921da",
  "statement_id" : "019ebf09-ed4d-7cfe-a577-c752b9a9962c",
  "start_time" : "2026-06-13T03:32:39.386Z",
  "duration" : 30168,
  "estimate_total_time" : 35000,
  "estimate_left_time" : 4832,
  "schema_name" : "default_db",
  "query" : "SELECT write_to_file1212('/work_dir/actor_share/019ebf09-9043-7712-b2f5-457c448921da/
1234.txt','***') WITH ARGUMENTS(cpu=0.33, memory=128);",
  "query_plan" : "",
  "startup_coordinator_duration" : 531,
  "create_session_duration" : 12,
  "enqueue_statement_duration" : 0,
  "queue_duration" : 0,
  "write_resultset_duration" : 0,
```

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```
  "parse_time" : 76,
  "estimate_memory" : 4096,
  "status" : "SUCCESSFUL",
  "error_info" : "",
  "dn_time_skew_percent" : 0,
  "dn_max_peak_memory" : 0,
  "dn_average_peak_memory" : 0,
  "dn_spill_skew_percent" : 0,
  "dn_write_disk_total_size" : 0,
  "dn_spill_obs_total_size" : 0,
  "cn_spill_obs_size" : 0,
  "disk_cache_hit_ratio" : 0,
  "obs_io_req_avg_latency" : 0,
  "obs_io_req_latency_gt_1s" : 0,
  "obs_io_req_latency_gt_10s" : 0
} ]
```


Status code: 400


```
{
  "error_code" : "AIDataLake.00092031",
  "error_msg" : "Invalid parameter name",
  "solution_msg" : "Please enter parameters in the correct format."
}
```


Status code: 401


```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed.",
  "solution_msg" : "Please obtain a valid token and retry."
}
```


Status code: 403


```
{
  "error_code" : "AIDataLake.00090030",
  "error_msg" : "Unauthorized requests.",
  "solution_msg" : "Check permissions and retry after authorization."
}
```


Status code: 404


```
{
  "error_code" : "AIDataLake.00090009",
  "error_msg" : "The resource does not exists.",
  "solution_msg" : "Please try to use correct info."
}
```


Status code: 408


```
{
  "error_code" : "common.00000408",
  "error_msg" : "A timeout exception occurred.",
  "solution_msg" : "The request timed out while waiting for a response — check the backend service status and network, then retry; if the operation is long-running, increase the client timeout or split the request."
}
```


Status code: 500


```
{
  "error_code" : "common.00000500",
  "error_msg" : "internal error",
  "solution_msg" : "An internal service error occurred. Please retry later; if the problem persists, contact technical support."
}
```


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Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request.
401	Unauthorized.
403	Request denied.
404	The requested resource could not be found.
408	Request timeout.
500	Internal server error.

5.1.10 Viewing SQL Execution Records Under a Specified Session

Function

This API is used to query SQL execution records under a specified session.

This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/aura-sessions/{session_id}/statements

Table 5-100 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
session_id	Yes	String	**Definition**: Session ID. You can obtain the session ID by calling the **Listing Sessions** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Table 5-101 Query Parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	**Definition**: Maximum number of records returned per page. **Constraints**: N/A **Range**: 1 to 100. **Default Value**: **10**.
marker	No	String	**Definition**: ID of the last record on the previous page. Pass an empty value for the first page query. **Constraints**: N/A **Range**: 1 to 64 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed. **Default Value**: N/A
statement_id	No	String	**Definition**: Statement ID. You can obtain the statement ID by calling the **Viewing SQL Execution Records Under a Specified Session** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
status	No	String	**Definition**: Status filtering. Only one status can be queried. By default, all statuses are queried. **Constraints**: N/A **Range** • **CANCELED**: Canceled. • **FAILED**: Failed. • **SUCCESSFUL**: Successful. • **RUNNING**: Running. • **SUBMITTED**: Submitted. • **ERROR**: Error. • **WAITING**: Waiting. **Default Value**: If not specified, all statuses are queried.
statement_type	No	String	**Definition**: Job type filter (**SQL**/**JOB**). If not specified, all types are returned. **Constraints**: N/A **Range**: **SQL**, **JOB**. **Default Value**: N/A

Request Parameters

Table 5-102 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Response Parameters

Status code: 200

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Table 5-103 Response body parameters

Parameter	Type	Description
records	Array of **SessionStatementRecord** objects	**Definition**: Records for this query. **Range**: N/A
current_count	Integer	**Definition**: Total number of records for this query. **Range**: 1 to 2147483647.
next_marker	String	**Definition**: Marker value for the next page query. An empty value indicates the current page is the last. **Range**: 1 to 64 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.

Table 5-104 SessionStatementRecord

Parameter	Type	Description
statement_id	String	**Definition**: Statement ID. **Range**: 1 to 36 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.
statement_content	String	**Definition**: Query statement. **Range**: N/A
create_time	String	**Definition**: Creation time, in ISO 8601 standard format. For example, 2023-05-30T12:24:30.401Z. **Range**: N/A
status	String	**Definition**: Status. **Range** • **CANCELED**: Canceled. • **FAILED**: Failed. • **SUCCESSFUL**: Successful. • **RUNNING**: Running. • **SUBMITTED**: Submitted. • **ERROR**: Error. • **WAITING**: Waiting.
user_name	String	**Definition**: Username. **Range**: 1 to 64 characters. Only letters, digits, and underscores (_) are allowed.

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Parameter	Type	Description
tuple_processed	Long	**Definition**: Number of rows processed. Returned only for **JOB** type; returns null for **SQL** type. **Range**: N/A
statement_type	String	**Definition**: Job type (**SQL**/**JOB**). **Range**: **SQL**, **JOB**.
statement_name	String	**Definition**: Job name. **Range**: N/A
error	**ErrorMessage** object	**Definition**: Error object returned on failure, including the error code, error description, and solution. **Range**: N/A

Table 5-105 ErrorMessage

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 400

Table 5-106 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 401

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Table 5-107 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 403

Table 5-108 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 404

Table 5-109 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 408

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Table 5-110 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 500

Table 5-111 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Example Requests

Query SQL execution history records.

```
GET /v2/workspaces/{workspace_id}/aura-sessions/{session_id}/statements
```

Example Responses

Status code: 200

```
{
  "records" : [ {
    "statement_id" : "4272****02409",
    "statement_content" : "select 1",
    "create_time" : "2025-07-22T08:44:00.000+00:00",
    "status" : "FAILED",
    "user_name" : "example"
  }, {
    "statement_id" : "ba5e****78fd",
    "statement_content" : "select 1",
    "create_time" : "2025-07-22T08:43:58.000+00:00",
    "status" : "SUCCESSFUL",
    "user_name" : "example"
  } ],
  "current_count" : 2,
```

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```
  "next_marker" : null
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00092031",
  "error_msg" : "Invalid parameter name",
  "solution_msg" : "Please enter parameters in the correct format."
}
```

Status code: 401

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed.",
  "solution_msg" : "Please obtain a valid token and retry."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00090030",
  "error_msg" : "Unauthorized requests.",
  "solution_msg" : "Check permissions and retry after authorization."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00090009",
  "error_msg" : "The resource does not exists.",
  "solution_msg" : "Please try to use correct info."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "A timeout exception occurred.",
  "solution_msg" : "The request timed out while waiting for a response — check the backend service status and network, then retry; if the operation is long-running, increase the client timeout or split the request."
}
```

Status code: 500

```
{
  "error_code" : "common.00000500",
  "error_msg" : "internal error",
  "solution_msg" : "An internal service error occurred. Please retry later; if the problem persists, contact technical support."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request.
401	Unauthorized.
403	Request denied.

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Status Code	Description
404	The requested resource could not be found.
408	Request timeout.
500	Internal server error.

5.1.11 Viewing SQL Execution Operator Monitoring Records

Function

This API is used to view SQL execution operator monitoring records.

This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/aura-sessions/{session_id}/statements/{statement_id}/operator-metrics

Table 5-112 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
session_id	Yes	String	**Definition**: Session ID. You can obtain the session ID by calling the **Listing Sessions** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
statement_id	Yes	String	**Definition**: Statement ID, which can be obtained by calling the **Viewing SQL Execution Records Under a Specified Session** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed. **Default Value**: N/A

Request Parameters

Table 5-113 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Response Parameters

Status code: 200

Table 5-114 Response body parameters

Parameter	Type	Description
[items]	Array of **AuraStatementOperatorMetrics** objects	**Definition**: Aura operator monitoring response structure.

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Table 5-115 AuraStatementOperatorMetrics

Parameter	Type	Description
session_id	String	**Definition**: Session ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
endpoint_id	String	**Definition**: Endpoint ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
endpoint_name	String	**Definition**: Endpoint name. **Range**: 1 to 128 characters. Only letters, digits, periods (.), underscores (_), hyphens (-), and spaces are allowed.
operator_metrics	Array of **OperatorMetric** objects	**Definition**: Operator monitoring information. **Range**: N/A

Table 5-116 OperatorMetric

Parameter	Type	Description
query_id	Long	**Definition**: Query ID. **Range**: 1 to 9223372036854775807.
plan_node_id	Integer	**Definition**: Node ID. **Range**: 1 to 2147483647.
plan_node_name	String	**Definition**: Node name. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.
start_time	String	**Definition**: Start time, in ISO 8601 standard format. For example, 2023-05-30T12:24:30.401Z. **Range**: N/A
duration	Long	**Definition**: Execution duration, in milliseconds. **Range**: 1 to 9,223,372,036,854,775,807.

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Parameter	Type	Description
status	String	**Definition**: Current execution status of an operator. **Range** • **init**: Initializing. • **waiting**: Waiting. • **finished**: Finished. • **running**: Running.
query_dop	Integer	**Definition**: Query parallelism. **Range**: 1 to 2147483647.
estimated_rows	Long	**Definition**: Estimated number of rows. **Range**: 1 to 9223372036854775807.
tuple_processed	Long	**Definition**: Number of rows currently processed. **Range**: 1 to 9223372036854775807.
min_peak_memory	Integer	**Definition**: Minimum peak memory usage, in MB. **Range**: 1 to 2,147,483,647.
max_peak_memory	Integer	**Definition**: Maximum peak memory usage, in MB. **Range**: 1 to 2,147,483,647.
average_peak_memory	Integer	**Definition**: Average peak memory usage, in MB. **Range**: 1 to 2,147,483,647.
memory_skew_percent	Integer	**Definition**: Memory usage skew percentage. **Range**: 1 to 2147483647.
min_spill_size	Integer	**Definition**: Minimum spill data size, in MB. **Range**: 1 to 2,147,483,647.
max_spill_size	Integer	**Definition**: Maximum spill data size, in MB. **Range**: 1 to 2,147,483,647.
average_spill_size	Integer	**Definition**: Average spill data size, in MB. **Range**: 1 to 2,147,483,647.
spill_skew_percent	String	**Definition**: Skew percentage of data spilled to disks. **Range**: N/A

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Parameter	Type	Description
loops	Integer	**Definition**: Number of operator execution iterations. **Range**: 1 to 2147483647.
progress	String	**Definition**: Execution progress percentage. **Range**: N/A
total_read_size	Long	**Definition**: Total amount of data read by all nodes, in MB. **Range**: 1 to 9,223,372,036,854,775,807.
total_write_size	Long	**Definition**: Total amount of data written by all nodes, in MB. **Range**: 1 to 9,223,372,036,854,775,807.
sub_operator_metrics	Array of **OperatorMetric** objects	**Definition**: Child nodes. **Range**: N/A

Status code: 400

Table 5-117 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 401

Table 5-118 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 403

Table 5-119 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 404

Table 5-120 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 408

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Table 5-121 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Status code: 500

Table 5-122 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 4,096 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 2 to 4,096 characters.

Example Requests

Query SQL execution operator monitoring records.

```
GET /v2/workspaces/{workspace_id}/aura-sessions/{session_id}/statements/{statement_id}/operator-metrics

{ }
```

Example Responses

Status code: 200

```
{
  "session_id" : "019ecb4f-0662-7689-b348-a02a5a823a44,",
  "statement_id" : "019ecb4f-84b8-7f34-8475-3554291ff8ee,",
  "operator_metrics" : [ {
    "query_id" : 132011764077297660,
    "plan_node_id" : 1,
    "plan_node_name" : "Row Adapter",
    "start_time" : "2026-06-15T12:44:06.755+00:00",
    "duration" : 20032,
    "status" : "running",
    "query_dop" : 1,
    "estimated_rows" : 1,
    "tuple_processed" : 1,
    "min_peak_memory" : 1,
```

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```
    "max_peak_memory" : 10000,
    "average_peak_memory" : 3000,
    "memory_skew_percent" : 1,
    "min_spill_size" : 1,
    "max_spill_size" : 10000,
    "average_spill_size" : 3000,
    "spill_skew_percent" : "0%",
    "loops" : 200,
    "progress" : "0.00%",
    "total_read_size" : 20000,
    "total_write_size" : 30000,
    "sub_operator_metrics" : [ {
      "query_id" : 132011764077297660,
      "plan_node_id" : 1,
      "plan_node_name" : "Vector Result",
      "start_time" : "2026-06-15T12:44:06.755+00:00",
      "duration" : 20032,
      "status" : "running",
      "query_dop" : 1,
      "estimated_rows" : 1,
      "tuple_processed" : 1,
      "min_peak_memory" : 1,
      "max_peak_memory" : 10000,
      "average_peak_memory" : 3000,
      "memory_skew_percent" : 1,
      "min_spill_size" : 1,
      "max_spill_size" : 10000,
      "average_spill_size" : 3000,
      "spill_skew_percent" : "0%",
      "loops" : 200,
      "progress" : "0.00%",
      "total_read_size" : 20000,
      "total_write_size" : 30000,
      "sub_operator_metrics" : [ ]
    } ]
  }, {
    "query_id" : 132011764077297859,
    "plan_node_id" : 1,
    "plan_node_name" : "Vector Result",
    "start_time" : "2026-06-15T12:44:06.755+00:00",
    "duration" : 20032,
    "status" : "running",
    "query_dop" : 1,
    "estimated_rows" : 1,
    "tuple_processed" : 1,
    "min_peak_memory" : 1,
    "max_peak_memory" : 10000,
    "average_peak_memory" : 3000,
    "memory_skew_percent" : 1,
    "min_spill_size" : 1,
    "max_spill_size" : 10000,
    "average_spill_size" : 3000,
    "spill_skew_percent" : "0%",
    "loops" : 200,
    "progress" : "0.00%",
    "total_read_size" : 20000,
    "total_write_size" : 30000,
    "sub_operator_metrics" : [ ]
  } ]
}
```


Status code: 400


```
{
  "error_code" : "AIDataLake.00092031",
  "error_msg" : "Invalid parameter name",
  "solution_msg" : "Please enter parameters in the correct format."
}
```


Status code: 401

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```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed.",
  "solution_msg" : "Please obtain a valid token and retry."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00090030",
  "error_msg" : "Unauthorized requests.",
  "solution_msg" : "Check permissions and retry after authorization."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00090009",
  "error_msg" : "The resource does not exists.",
  "solution_msg" : "Please try to use correct info."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "A timeout exception occurred.",
  "solution_msg" : "The request timed out while waiting for a response — check the backend service status and network, then retry; if the operation is long-running, increase the client timeout or split the request."
}
```

Status code: 500

```
{
  "error_code" : "common.00000500",
  "error_msg" : "internal error",
  "solution_msg" : "An internal service error occurred. Please retry later; if the problem persists, contact technical support."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request.
401	Unauthorized.
403	Request denied.
404	The requested resource could not be found.
408	Request timeout.
500	Internal server error.

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6 Ray APIs

6.1 RayJob Management

6.1.1 Running a Job

Function

This API is used to run a Ray job. This is an asynchronous API that returns a job ID after a request is submitted successfully. The job does not complete immediately. You need to call the **Viewing Ray Job Details** API to check the job status. When the job status is **SUCCEEDED**, the job has been run successfully.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/workspaces/{workspace_id}/ray-jobs

Table 6-1 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Request Parameters

Table 6-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. **Default Value**: N/A
X-Client-Token	No	String	**Definition**: Job transaction ID, which is used to prevent duplicate submissions. **Constraints**: N/A **Range**: Up to 65,534 characters. **Default Value**: N/A

Table 6-3 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Job name. **Constraints**: N/A **Range**: 1 to 47 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
endpoint_name	Yes	String	**Definition**: Endpoint name. **Constraints**: N/A **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. The value must start with a lowercase letter and end with a lowercase letter or digit. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
config	Yes	RayJobConfig object	**Definition**: Ray job configuration. The key is the configuration item name, and the value is the configuration item value. **Constraints**: N/A
description	No	String	**Definition**: Description. **Constraints**: N/A **Range**: 0 to 1,024 characters. Only letters, digits, underscores (_), hyphens (-), periods (.), and spaces are allowed. **Default Value**: N/A

Table 6-4 RayJobConfig

Parameter	Mandatory	Type	Description
entrypoint	Yes	String	**Definition**: Main script for running a job. When a job is run, the **.zip** file of the job script is automatically decompressed. If the first-level directory contains only one folder after decompression, that folder is automatically stripped. Therefore, you only need to specify the script file name, without including the parent directory. **Constraints**: N/A **Range**: 1 to 102,400 characters. **Default Value**: N/A
runtime_env	No	RuntimeEnv object	**Definition**: Runtime environment configuration for a job. **Constraints**: N/A **Default Value**: N/A

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Parameter	Mandatory	Type	Description
image	No	**V2ImageBriefInfo** object	**Definition**: Image information. **Constraints**: Configured only when a job is submitted to a RayJob endpoint.
resource_config	No	**RayResourceConfig** object	**Definition**: Ray node resource configuration. **Constraints**: Configured only when a job is submitted to a RayJob endpoint.
rayjob_strategy	No	**RayJobStrategy** object	**Definition**: Ray job submission policy. **Constraints**: N/A
metadata	No	Map<String,String>	**Definition**: User-defined job metadata (key-value pairs). **Constraints**: 0 to 255 key-value pairs. Both key and value must be non-empty and no longer than 255 characters.

Table 6-5 RuntimeEnv

Parameter	Mandatory	Type	Description
working_dir	No	String	**Definition**: Working directory where the code will run. **Constraints**: Must be a remote URI, for example, an OBS path. **Range**: 1 to 2048. **Default Value**: N/A
pip	No	Array of strings	**Definition**: A list of pip packages to install. **Constraints**: 0 to 1023.
env_vars	No	Map<String,String>	**Definition**: Environment variables to set. The key is the environment variable name, and the value is the environment variable value. Both are of the String type. **Constraints**: N/A

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Parameter	Mandatory	Type	Description
config	No	Map<String,Object>	**Definition**: Runtime environment configuration. The key is the configuration item name, and the value is the configuration item value. **Constraints**: N/A

Table 6-6 V2ImageBriefInfo

Parameter	Mandatory	Type	Description
image_id	Yes	String	**Definition**: Image ID. For details about how to obtain it, see **Listing Images**. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
image_version_id	Yes	String	**Definition**: Image version ID. For details about how to obtain it, see **Querying Details of an Image**. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Table 6-7 RayResourceConfig

Parameter	Mandatory	Type	Description
head_resource_spec	Yes	**RayHeadResourceSpec** object	**Definition**: Head resource configuration. **Constraints**: Configured only when a job is submitted to a RayJob endpoint.
worker_resource_spec	Yes	Array of **RayWorkerResourceSpec** objects	**Definition**: Worker resource configuration. **Constraints**: Configured only when a job is submitted to a RayJob endpoint.

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Table 6-8 RayHeadResourceSpec

Parameter	Mandatory	Type	Description
cpu	Yes	Integer	**Definition**: Number of CPU cores, in millicores. **Constraints**: N/A **Range**: The minimum value is **1000**. **Default Value**: N/A
memory	Yes	Integer	**Definition**: Memory size for a single head node, in MB. **Constraints**: N/A **Range**: The minimum value is **1024**. **Default Value**: N/A
gpu	No	Double	**Definition**: Number of GPUs on a node. **Constraints**: Values less than 1 or with decimal fractions (e.g., 0.5, 1.5) are not supported. **Range**: Must be greater than or equal to 1.0 and must be an integer value (e.g., 1.0, 2.0, 3.0, ...). **Default Value**: N/A
npu	No	Double	**Definition**: Number of NPUs on a node. **Constraints**: Values less than 1 or with decimal fractions (e.g., 0.5, 1.5) are not supported. **Range**: Must be greater than or equal to 1.0 and must be an integer value (e.g., 1.0, 2.0, 3.0, ...). **Default Value**: N/A

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Table 6-9 RayWorkerResourceSpec

Parameter	Mandatory	Type	Description
cpu	Yes	Integer	**Definition**: Number of CPU cores, in millicores. **Constraints**: N/A **Range**: The minimum value is **1000**. **Default Value**: N/A
memory	Yes	Integer	**Definition**: Memory size, in MB. **Constraints**: N/A **Range**: The minimum value is **1024**. **Default Value**: N/A
gpu	No	Double	**Definition**: Number of GPUs on a node. **Constraints**: Values less than 1 or with decimal fractions (e.g., 0.5, 1.5) are not supported. **Range**: Must be greater than or equal to 1.0 and must be an integer value (e.g., 1.0, 2.0, 3.0, ...). **Default Value**: N/A
npu	No	Double	**Definition**: Number of NPUs on a node. **Constraints**: Values less than 1 or with decimal fractions (e.g., 0.5, 1.5) are not supported. **Range**: Must be greater than or equal to 1.0 and must be an integer value (e.g., 1.0, 2.0, 3.0, ...). **Default Value**: N/A
worker_replicas	No	Integer	**Definition**: Number of worker replicas. **Constraints**: N/A **Range**: 1 to 64 **Default Value**: N/A

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Parameter	Mandatory	Type	Description
enable_autoscaling	Yes	Boolean	**Definition**: Specifies whether to enable auto scaling for worker nodes. **Constraints**: N/A **Range** • **true**: Enable auto scaling. If this value is used, **worker_min_replicas** and **worker_max_replicas** must be set. • **false**: Disable auto scaling. If this value is used, **worker_replicas** must be set. **Default Value**: **false**
worker_min_replicas	No	Integer	**Definition**: Minimum number of worker replicas. **Constraints**: N/A **Range**: 0 to 64 **Default Value**: N/A
worker_max_replicas	No	Integer	**Definition**: Maximum number of worker replicas. **Constraints**: N/A **Range**: 1 to 64 **Default Value**: N/A

Table 6-10 RayJobStrategy

Parameter	Mandatory	Type	Description
queued_timeout	No	Integer	**Definition**: Job submission timeout. If the job has not started running after this time, the job fails. The unit is minute. **Constraints**: N/A **Range**: 10 to 1440. **Default Value**: **180** (3 hours)

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Parameter	Mandatory	Type	Description
running_timeout	No	Integer	**Definition**: Job runtime timeout. If the job has not finished running after this time, the job will be canceled and marked as failed. The unit is minute. **Constraints**: N/A **Range**: -1 to 10080 (**-1** indicates no timeout is configured). **Default Value**: **-1**

Response Parameters

Status code: 202

Table 6-11 Response body parameters

Parameter	Type	Description
job_id	String	**Definition**: Job ID. It can be obtained by calling the **Listing Ray Jobs** API. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

Status code: 400

Table 6-12 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 401

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Table 6-13 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 403

Table 6-14 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 404

Table 6-15 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 408

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Table 6-16 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 500

Table 6-17 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Example Requests

Run a Ray job.

```
POST /v2/workspaces/{workspace_id}/ray-jobs

{
  "name" : "rayjob0615-4",
  "description" : "run Ray Job",
  "endpoint_name" : "ray-test",
  "config" : {
    "entrypoint" : "python3 create_csv.py",
    "runtime_env" : {
      "working_dir" : "obs://ray-shared-csc/ray-zy/create_csv.zip",
      "pip" : [ "numpy==1.16.1" ],
      "env_vars" : {
        "APP_PORT" : "8848",
        "NODE_ENV" : "production"
      }
    },
    "image" : {
      "id" : "dd877a59-5cbd-44c5-b8a7-dc464cca****",
      "image_version" : "01ae8ee6-af8a-48a8-895b-8d4a70bf****"
    }
  }
}
```

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Example Responses

Status code: 202

```
{
  "job_id" : "ac8111bf-3601-4905-8ddd-b41d3e636a4e"
}
```

Status code: 400

```
{
  "error_code" : "common.01000001",
  "error_msg" : "failed to read http request, please check your input, code: 400, reason: Type mismatch., cause: TypeMismatchException",
  "solution_msg" : "Check whether the request parameters comply with the API definition and try again."
}
```

Status code: 401

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed",
  "solution_msg" : "Please check if auth token is included in the request header."
}
```

Status code: 403

```
{
  "error_code" : "APIG.1003",
  "error_msg" : "X-Auth-Token is invalid in the request",
  "solution_msg" : "Check whether the token in the request is valid and try again."
}
```

Status code: 404

```
{
  "error_code" : "common.01000001",
  "error_msg" : "response status exception, code: 404",
  "solution_msg" : "Please try to use correct info."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "The backend request timed out — check service health and network connectivity, then retry."
}
```

Status code: 500

```
{
  "error_code" : "common.00000500",
  "error_msg" : "internal error",
  "solution_msg" : "Contact operations for analysis."
}
```

Status Codes

Status Code	Description
202	Request submitted.
400	Invalid request.

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Status Code	Description
401	Unauthorized.
403	Request denied.
404	The requested resource could not be found.
408	Request timeout.
500	Internal server error.

6.1.2 Listing Ray Jobs

Function

This API is used to list all Ray jobs. It lists jobs under a workspace and returns results with pagination. This API is a synchronous API. After the request for listing all Ray jobs is submitted, the result is returned.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/ray-jobs

Table 6-18 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Table 6-19 Query Parameters

Parameter	Mandatory	Type	Description
marker	No	String	**Definition**: ID of the last record on the previous page. Pass an empty value for the first page query. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
limit	No	Integer	**Definition**: Maximum number of records returned per page. **Constraints**: N/A **Range**: 1 to 100. **Default Value**: **10**.
name	No	String	**Definition**: Job name, allowing you to search for jobs by their name. **Constraints**: N/A **Range**: 1 to 64 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed. **Default Value**: N/A
id	No	String	**Definition**: Job ID, allowing you to search for jobs by their ID. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
endpoint_name	No	String	**Definition**: Endpoint name, allowing you to search for endpoints by their name. **Constraints**: N/A **Range**: 1 to 64 characters. Only letters, digits, underscores (_), hyphens (-), periods (.), and spaces are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
status	No	Array of strings	**Definition**: Status filter. Multiple statuses can be queried. By default, all statuses are queried. **Constraints**: N/A **Range** • **QUEUED**: Queued. • **PENDING**: Pending. • **RUNNING**: Running. • **CANCELING**: Canceling. • **CANCELED**: Canceled. • **FAILED**: Failed. • **QUEUED_TIMEOUT**: Queued timeout. • **RUNNING_TIMEOUT**: Running timeout. • **SUCCEEDED**: Succeeded. **Default Value**: N/A

Request Parameters

Table 6-20 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. **Default Value**: N/A

Response Parameters

Status code: 200

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Table 6-21 Response body parameters

Parameter	Type	Description
next_marker	String	**Definition**: Marker value for the next page query. An empty value indicates the current page is the last. **Range**: N/A
previous_marker	String	**Definition**: Address for querying the previous page. An empty value indicates the first page. **Range**: N/A
current_count	Integer	**Definition**: Total number of records for this query. **Range**: N/A
jobs	Array of **RayJobInfo** objects	**Definition**: List of Ray job information, including job name, status, configuration, and other details. Each element in the array is a RayJobInfo object.

Table 6-22 RayJobInfo

Parameter	Type	Description
name	String	**Definition**: Job name. **Range**: 1 to 47 characters. Only letters, digits, and hyphens (-) are allowed.
endpoint_name	String	**Definition**: Endpoint name. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. The value must start with a lowercase letter and end with a lowercase letter or digit.
config	**RayJobConfig** object	**Definition**: Ray job configuration. The key is the configuration item name, and the value is the configuration item value.
description	String	**Definition**: Description. **Range**: 0 to 1,024 characters. Only letters, digits, underscores (_), hyphens (-), periods (.), and spaces are allowed.

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Parameter	Type	Description
id	String	**Definition**: Job ID. It can be obtained by calling the **Listing Ray Jobs** API. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
duration	Integer	**Definition**: Running duration, in seconds. **Range**: N/A
submission_id	String	**Definition**: Unique ID of a Ray job. **Range**: 0 to 64 characters.
endpoint_type	String	**Definition**: Endpoint type for the job. **Range** • **RAY_JOB**: RayJob endpoint job. • **RAY_CLUSTER**: RayCluster endpoint job. • **RAY_FEDERATION**: Ray Federation endpoint job.
endpoint_id	String	**Definition**: Endpoint ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
federation_id	String	**Definition**: Federation ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
federation_name	String	**Definition**: Federation name. **Range**: 1 to 63 characters.
create_time	String	**Definition**: Creation time. UTC time format: yyyy-MM-ddTHH:mm:ssZ. For example, 2023-05-30T12:24:30.401Z. **Range**: N/A
update_time	String	**Definition**: Update time. UTC time format: yyyy-MM-ddTHH:mm:ssZ. For example, 2023-05-30T12:24:30.401Z. **Range**: N/A
start_time	String	**Definition**: Job execution start time. UTC time format: yyyy-MM-ddTHH:mm:ssZ. For example, 2023-05-30T12:24:30.401Z. **Range**: N/A

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Parameter	Type	Description
end_time	String	**Definition**: End time. UTC time format: yyyy-MM-ddTHH:mm:ssZ. For example, 2023-05-30T12:24:30.401Z. **Range**: N/A
status	String	**Definition**: Running status. **Range** • **QUEUED**: Queued. • **PENDING**: Pending. • **RUNNING**: Running. • **CANCELING**: Canceling. • **CANCELED**: Canceled. • **FAILED**: Failed. • **QUEUED_TIMEOUT**: Queued timeout. • **RUNNING_TIMEOUT**: Running timeout. • **SUCCEEDED**: Succeeded.
create_user	**User** object	**Definition**: Tenant information, including the account name, account ID, username, and user ID.
error	**ErrorMessage** object	**Definition**: Text message content returned on failure, including the error code, error description, and solution description.
history_server_enabled	Boolean	**Definition**: Whether the History Server feature is enabled for this job. **Range** • **true**: History Server is enabled. • **false**: History Server is disabled.

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Table 6-23 RayJobConfig

Parameter	Type	Description
entrypoint	String	**Definition**: Main script for running a job. When a job is run, the **.zip** file of the job script is automatically decompressed. If the first-level directory contains only one folder after decompression, that folder is automatically stripped. Therefore, you only need to specify the script file name, without including the parent directory. **Range**: 1 to 102,400 characters.
runtime_env	**RuntimeEnv** object	**Definition**: Runtime environment configuration for a job.
image	**V2ImageBriefInfo** object	**Definition**: Image information.
resource_config	**RayResourceConfig** object	**Definition**: Ray node resource configuration.
rayjob_strategy	**RayJobStrategy** object	**Definition**: Ray job submission policy.
metadata	Map<String,String>	**Definition**: User-defined job metadata (key-value pairs).

Table 6-24 RuntimeEnv

Parameter	Type	Description
working_dir	String	**Definition**: Working directory where the code will run. **Range**: 1 to 2048.
pip	Array of strings	**Definition**: A list of pip packages to install.
env_vars	Map<String,String>	**Definition**: Environment variables to set. The key is the environment variable name, and the value is the environment variable value. Both are of the String type.
config	Map<String,Object>	**Definition**: Runtime environment configuration. The key is the configuration item name, and the value is the configuration item value.

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Table 6-25 V2ImageBriefInfo

Parameter	Type	Description
image_id	String	**Definition**: Image ID. For details about how to obtain it, see **Listing Images**. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
image_version_id	String	**Definition**: Image version ID. For details about how to obtain it, see **Querying Details of an Image**. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

Table 6-26 RayResourceConfig

Parameter	Type	Description
head_resource_spec	**RayHeadResourceSpec** object	**Definition**: Head resource configuration.
worker_resource_spec	Array of **RayWorkerResourceSpec** objects	**Definition**: Worker resource configuration.

Table 6-27 RayHeadResourceSpec

Parameter	Type	Description
cpu	Integer	**Definition**: Number of CPU cores, in millicores. **Range**: The minimum value is **1000**.
memory	Integer	**Definition**: Memory size for a single head node, in MB. **Range**: The minimum value is **1024**.
gpu	Double	**Definition**: Number of GPUs on a node. **Range**: Must be greater than or equal to 1.0 and must be an integer value (e.g., 1.0, 2.0, 3.0, ...).

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Parameter	Type	Description
npu	Double	**Definition**: Number of NPUs on a node. **Range**: Must be greater than or equal to 1.0 and must be an integer value (e.g., 1.0, 2.0, 3.0, ...).

Table 6-28 RayWorkerResourceSpec

Parameter	Type	Description
cpu	Integer	**Definition**: Number of CPU cores, in millicores. **Range**: The minimum value is **1000**.
memory	Integer	**Definition**: Memory size, in MB. **Range**: The minimum value is **1024**.
gpu	Double	**Definition**: Number of GPUs on a node. **Range**: Must be greater than or equal to 1.0 and must be an integer value (e.g., 1.0, 2.0, 3.0, ...).
npu	Double	**Definition**: Number of NPUs on a node. **Range**: Must be greater than or equal to 1.0 and must be an integer value (e.g., 1.0, 2.0, 3.0, ...).
worker_replicas	Integer	**Definition**: Number of worker replicas. **Range**: 1 to 64
enable_autoscaling	Boolean	**Definition**: Specifies whether to enable auto scaling for worker nodes. **Range** • **true**: Enable auto scaling. If this value is used, **worker_min_replicas** and **worker_max_replicas** must be set. • **false**: Disable auto scaling. If this value is used, **worker_replicas** must be set.
worker_min_replicas	Integer	**Definition**: Minimum number of worker replicas. **Range**: 0 to 64

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Parameter	Type	Description
worker_max_replicas	Integer	**Definition**: Maximum number of worker replicas. **Range**: 1 to 64

Table 6-29 RayJobStrategy

Parameter	Type	Description
queued_timeout	Integer	**Definition**: Job submission timeout. If the job has not started running after this time, the job fails. The unit is minute. **Range**: 10 to 1440.
running_timeout	Integer	**Definition**: Job runtime timeout. If the job has not finished running after this time, the job will be canceled and marked as failed. The unit is minute. **Range**: -1 to 10080 (**-1** indicates no timeout is configured).

Table 6-30 User

Parameter	Type	Description
domain_name	String	**Definition**: Account name. **Range**: 0 to 64 characters.
domain_id	String	**Definition**: Account ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
user_name	String	**Definition**: Username. **Range**: 0 to 64 characters.
user_id	String	**Definition**: User ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Table 6-31 ErrorMessage

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 400

Table 6-32 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 401

Table 6-33 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 403

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Table 6-34 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 404

Table 6-35 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 408

Table 6-36 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 500

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Table 6-37 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Example Requests

Lists all Ray jobs.

```
GET /v2/workspaces/{workspace_id}/ray-jobs
```

Example Responses

Status code: 200


```
{
  "current_count" : 1,
  "jobs" : [ {
    "name" : "rayjob1",
    "description" : "rayjob1",
    "config" : {
      "entrypoint" : "echo helloworldstart;\\n sleep 100;\\necho helloworldend;\\n",
      "image" : {
        "image_id" : "2ca95307-9e39-4ab5-a101-7c05486977b4",
        "image_version_id" : "8952ce4a-86bb-4f24-95e8-f2091bfa3f49"
      },
      "resource_config" : {
        "head_resource_spec" : {
          "cpu" : 2000,
          "memory" : 4096,
          "gpu" : 1,
          "npu" : 1
        },
        "worker_resource_spec" : [ {
          "cpu" : 2000,
          "memory" : 4096,
          "gpu" : 1,
          "npu" : 1,
          "worker_replicas" : 1,
          "enable_autoscaling" : true,
          "worker_min_replicas" : 1,
          "worker_max_replicas" : 1
        } ]
      },
      "rayjob_strategy" : {
        "queued_timeout" : 180,
        "running_timeout" : 180
      }
    },
    "history_server_enabled" : false,
    "endpoint_name" : "ray-cpu-endpoint",
    "federation_name" : "ray-abc-federation",
    "id" : "019ef7e8-a783-78aa-bd98-6f56b32786c4",
    "duration" : 325,
```


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```
    "create_time" : "2026-06-27T10:05:24.593+00:00",
    "update_time" : "2026-06-27T10:10:57.177+00:00",
    "start_time" : "2026-06-27T10:05:32.000+00:00",
    "end_time" : "2026-06-27T10:10:57.000+00:00",
    "status" : "SUCCEEDED",
    "create_user" : {
      "domain_name" : "your_domain_name",
      "domain_id" : "your-domain-id",
      "user_name" : "your_user_name",
      "user_id" : "your-user-id"
    },
    "error" : {
      "error_msg" : "Job finished successfully."
    }
  } ]
}
```


Status code: 400


```
{
  "error_code" : "common.01000001",
  "error_msg" : "failed to read http request, please check your input, code: 400, reason: Type mismatch., cause: TypeMismatchException",
  "solution_msg" : "Check whether the request parameters comply with the API definition and try again."
}
```


Status code: 401


```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed",
  "solution_msg" : "Please check if auth token is included in the request header."
}
```


Status code: 403


```
{
  "error_code" : "APIG.1003",
  "error_msg" : "X-Auth-Token is invalid in the request",
  "solution_msg" : "Check whether the token in the request is valid and try again."
}
```


Status code: 404


```
{
  "error_code" : "common.01000001",
  "error_msg" : "response status exception, code: 404",
  "solution_msg" : "Please try to use correct info."
}
```


Status code: 408


```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "The backend request timed out — check service health and network connectivity, then retry."
}
```


Status code: 500


```
{
  "error_code" : "common.00000500",
  "error_msg" : "internal error",
  "solution_msg" : "Contact operations for analysis."
}
```


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Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request.
401	Unauthorized.
403	Request denied.
404	The requested resource could not be found.
408	Request timeout.
500	Internal server error.

6.1.3 Viewing Ray Job Details

Function

This API is used to view the details of a Ray job. This API is a synchronous API. After the request for viewing the details of a Ray job is submitted, the result is returned.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/ray-jobs/{job_id}

Table 6-38 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
job_id	Yes	String	**Definition**: Job ID. It can be obtained by calling the **Listing Ray Jobs** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Request Parameters

Table 6-39 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. **Default Value**: N/A

Response Parameters

Status code: 200

Table 6-40 Response body parameters

Parameter	Type	Description
name	String	**Definition**: Job name. **Range**: 1 to 47 characters. Only letters, digits, and hyphens (-) are allowed.
endpoint_name	String	**Definition**: Endpoint name. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. The value must start with a lowercase letter and end with a lowercase letter or digit.

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Parameter	Type	Description
config	**RayJobConfig** object	**Definition**: Ray job configuration. The key is the configuration item name, and the value is the configuration item value.
description	String	**Definition**: Description. **Range**: 0 to 1,024 characters. Only letters, digits, underscores (_), hyphens (-), periods (.), and spaces are allowed.
id	String	**Definition**: Job ID. It can be obtained by calling the **Listing Ray Jobs** API. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
duration	Integer	**Definition**: Running duration, in seconds. **Range**: N/A
submission_id	String	**Definition**: Unique ID of a Ray job. **Range**: 0 to 64 characters.
endpoint_type	String	**Definition**: Endpoint type for the job. **Range** • **RAY_JOB**: RayJob endpoint job. • **RAY_CLUSTER**: RayCluster endpoint job. • **RAY_FEDERATION**: Ray Federation endpoint job.
endpoint_id	String	**Definition**: Endpoint ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
federation_id	String	**Definition**: Federation ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
federation_name	String	**Definition**: Federation name. **Range**: 1 to 63 characters.
create_time	String	**Definition**: Creation time. UTC time format: yyyy-MM-ddTHH:mm:ssZ. For example, 2023-05-30T12:24:30.401Z. **Range**: N/A

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Parameter	Type	Description
update_time	String	**Definition**: Update time. UTC time format: yyyy-MM-ddTHH:mm:ssZ. For example, 2023-05-30T12:24:30.401Z. **Range**: N/A
start_time	String	**Definition**: Job execution start time. UTC time format: yyyy-MM-ddTHH:mm:ssZ. For example, 2023-05-30T12:24:30.401Z. **Range**: N/A
end_time	String	**Definition**: End time. UTC time format: yyyy-MM-ddTHH:mm:ssZ. For example, 2023-05-30T12:24:30.401Z. **Range**: N/A
status	String	**Definition**: Running status. **Range** • **QUEUED**: Queued. • **PENDING**: Pending. • **RUNNING**: Running. • **CANCELING**: Canceling. • **CANCELED**: Canceled. • **FAILED**: Failed. • **QUEUED_TIMEOUT**: Queued timeout. • **RUNNING_TIMEOUT**: Running timeout. • **SUCCEEDED**: Succeeded.
create_user	**User** object	**Definition**: Tenant information, including the account name, account ID, username, and user ID.
error	**ErrorMessage** object	**Definition**: Text message content returned on failure, including the error code, error description, and solution description.
history_server_enabled	Boolean	**Definition**: Whether the History Server feature is enabled for this job. **Range** • **true**: History Server is enabled. • **false**: History Server is disabled.

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Table 6-41 RayJobConfig

Parameter	Type	Description
entrypoint	String	**Definition**: Main script for running a job. When a job is run, the **.zip** file of the job script is automatically decompressed. If the first-level directory contains only one folder after decompression, that folder is automatically stripped. Therefore, you only need to specify the script file name, without including the parent directory. **Range**: 1 to 102,400 characters.
runtime_env	**RuntimeEnv** object	**Definition**: Runtime environment configuration for a job.
image	**V2ImageBriefInfo** object	**Definition**: Image information.
resource_config	**RayResourceConfig** object	**Definition**: Ray node resource configuration.
rayjob_strategy	**RayJobStrategy** object	**Definition**: Ray job submission policy.
metadata	Map<String,String>	**Definition**: User-defined job metadata (key-value pairs).

Table 6-42 RuntimeEnv

Parameter	Type	Description
working_dir	String	**Definition**: Working directory where the code will run. **Range**: 1 to 2048.
pip	Array of strings	**Definition**: A list of pip packages to install.
env_vars	Map<String,String>	**Definition**: Environment variables to set. The key is the environment variable name, and the value is the environment variable value. Both are of the String type.
config	Map<String,Object>	**Definition**: Runtime environment configuration. The key is the configuration item name, and the value is the configuration item value.

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Table 6-43 V2ImageBriefInfo

Parameter	Type	Description
image_id	String	**Definition**: Image ID. For details about how to obtain it, see **Listing Images**. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
image_version_id	String	**Definition**: Image version ID. For details about how to obtain it, see **Querying Details of an Image**. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

Table 6-44 RayResourceConfig

Parameter	Type	Description
head_resource_spec	**RayHeadResourceSpec** object	**Definition**: Head resource configuration.
worker_resource_spec	Array of **RayWorkerResourceSpec** objects	**Definition**: Worker resource configuration.

Table 6-45 RayHeadResourceSpec

Parameter	Type	Description
cpu	Integer	**Definition**: Number of CPU cores, in millicores. **Range**: The minimum value is **1000**.
memory	Integer	**Definition**: Memory size for a single head node, in MB. **Range**: The minimum value is **1024**.
gpu	Double	**Definition**: Number of GPUs on a node. **Range**: Must be greater than or equal to 1.0 and must be an integer value (e.g., 1.0, 2.0, 3.0, ...).

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Parameter	Type	Description
npu	Double	**Definition**: Number of NPUs on a node. **Range**: Must be greater than or equal to 1.0 and must be an integer value (e.g., 1.0, 2.0, 3.0, ...).

Table 6-46 RayWorkerResourceSpec

Parameter	Type	Description
cpu	Integer	**Definition**: Number of CPU cores, in millicores. **Range**: The minimum value is **1000**.
memory	Integer	**Definition**: Memory size, in MB. **Range**: The minimum value is **1024**.
gpu	Double	**Definition**: Number of GPUs on a node. **Range**: Must be greater than or equal to 1.0 and must be an integer value (e.g., 1.0, 2.0, 3.0, ...).
npu	Double	**Definition**: Number of NPUs on a node. **Range**: Must be greater than or equal to 1.0 and must be an integer value (e.g., 1.0, 2.0, 3.0, ...).
worker_replicas	Integer	**Definition**: Number of worker replicas. **Range**: 1 to 64
enable_autoscaling	Boolean	**Definition**: Specifies whether to enable auto scaling for worker nodes. **Range** • **true**: Enable auto scaling. If this value is used, **worker_min_replicas** and **worker_max_replicas** must be set. • **false**: Disable auto scaling. If this value is used, **worker_replicas** must be set.
worker_min_replicas	Integer	**Definition**: Minimum number of worker replicas. **Range**: 0 to 64

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Parameter	Type	Description
worker_max_replicas	Integer	**Definition**: Maximum number of worker replicas. **Range**: 1 to 64

Table 6-47 RayJobStrategy

Parameter	Type	Description
queued_timeout	Integer	**Definition**: Job submission timeout. If the job has not started running after this time, the job fails. The unit is minute. **Range**: 10 to 1440.
running_timeout	Integer	**Definition**: Job runtime timeout. If the job has not finished running after this time, the job will be canceled and marked as failed. The unit is minute. **Range**: -1 to 10080 (**-1** indicates no timeout is configured).

Table 6-48 User

Parameter	Type	Description
domain_name	String	**Definition**: Account name. **Range**: 0 to 64 characters.
domain_id	String	**Definition**: Account ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
user_name	String	**Definition**: Username. **Range**: 0 to 64 characters.
user_id	String	**Definition**: User ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Table 6-49 ErrorMessage

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 400

Table 6-50 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 401

Table 6-51 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 403

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Table 6-52 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 404

Table 6-53 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 408

Table 6-54 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 500

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Table 6-55 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Example Requests

View Ray job details.

```
GET /v2/workspaces/{workspace_id}/ray-jobs/{job_id}
```

Example Responses

Status code: 200


```
{
  "name" : "rayjob1",
  "description" : "rayjob1",
  "config" : {
    "entrypoint" : "echo helloworldstart;\\n sleep 100;\\necho helloworldend;\\n",
    "image" : {
      "image_id" : "2ca95307-9e39-4ab5-a101-7c05486977b4",
      "image_version_id" : "8952ce4a-86bb-4f24-95e8-f2091bfa3f49"
    },
    "resource_config" : {
      "head_resource_spec" : {
        "cpu" : 2000,
        "memory" : 4096,
        "gpu" : 1,
        "npu" : 1
      },
      "worker_resource_spec" : [ {
        "cpu" : 2000,
        "memory" : 4096,
        "gpu" : 1,
        "npu" : 1,
        "worker_replicas" : 1,
        "enable_autoscaling" : true,
        "worker_min_replicas" : 1,
        "worker_max_replicas" : 1
      } ]
    },
    "rayjob_strategy" : {
      "queued_timeout" : 180,
      "running_timeout" : 180
    }
  },
  "history_server_enabled" : false,
  "endpoint_name" : "ray-cpu-endpoint",
  "federation_name" : "ray-abc-federation",
  "id" : "019ef7e8-a783-78aa-bd98-6f56b32786c4",
  "duration" : 325,
  "create_time" : "2026-06-27T10:05:24.593+00:00",
  "update_time" : "2026-06-27T10:10:57.177+00:00",
```


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```
  "start_time" : "2026-06-27T10:05:32.000+00:00",
  "end_time" : "2026-06-27T10:10:57.000+00:00",
  "status" : "SUCCEEDED",
  "create_user" : {
    "domain_name" : "your_domain_name",
    "domain_id" : "your-domain-id",
    "user_name" : "your_user_name",
    "user_id" : "your-user-id"
  },
  "error" : {
    "error_msg" : "Job finished successfully."
  }
}
```


Status code: 400


```
{
  "error_code" : "common.01000001",
  "error_msg" : "failed to read http request, please check your input, code: 400, reason: Type mismatch., cause: TypeMismatchException",
  "solution_msg" : "Check whether the request parameters comply with the API definition and try again."
}
```


Status code: 401


```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed",
  "solution_msg" : "Please check if auth token is included in the request header."
}
```


Status code: 403


```
{
  "error_code" : "APIG.1003",
  "error_msg" : "X-Auth-Token is invalid in the request",
  "solution_msg" : "Check whether the token in the request is valid and try again."
}
```


Status code: 404


```
{
  "error_code" : "common.01000001",
  "error_msg" : "response status exception, code: 404",
  "solution_msg" : "Please try to use correct info."
}
```


Status code: 408


```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "The backend request timed out — check service health and network connectivity, then retry."
}
```


Status code: 500


```
{
  "error_code" : "common.00000500",
  "error_msg" : "internal error",
  "solution_msg" : "Contact operations for analysis."
}
```


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Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request.
401	Unauthorized.
403	Request denied.
404	The requested resource could not be found.
408	Request timeout.
500	Internal server error.

6.1.4 Canceling a Job Run

Function

This API is used to cancel the running of a job. It is mainly used to cancel the running of a Ray job. This is an asynchronous API that returns a job ID after a request is submitted successfully. The cancellation does not complete immediately. You need to call the **Viewing Ray Job Details** API to check the job status. When the job status is **CANCELED**, the job has been canceled successfully.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/workspaces/{workspace_id}/ray-jobs/{job_id}/cancel

Table 6-56 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
job_id	Yes	String	**Definition**: Job ID. It can be obtained by calling the **Listing Ray Jobs** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Request Parameters

Table 6-57 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. **Default Value**: N/A

Response Parameters

Status code: 202

Table 6-58 Response body parameters

Parameter	Type	Description
job_id	String	**Definition**: Job ID. It can be obtained by calling the **Listing Ray Jobs** API. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

Status code: 400

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Table 6-59 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 401

Table 6-60 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 403

Table 6-61 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 404

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Table 6-62 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 408

Table 6-63 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 500

Table 6-64 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Example Requests

Cancel a running job.

```
POST /v2/workspaces/{workspace_id}/ray-jobs/{job_id}/cancel
```

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Example Responses

Status code: 202

```
{
  "job_id" : "ac8111bf-3601-4905-8ddd-b41d3e636a4e"
}
```

Status code: 400

```
{
  "error_code" : "common.01000001",
  "error_msg" : "failed to read http request, please check your input, code: 400, reason: Type mismatch., cause: TypeMismatchException",
  "solution_msg" : "Check whether the request parameters comply with the API definition and try again."
}
```

Status code: 401

```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed",
  "solution_msg" : "Please check if auth token is included in the request header."
}
```

Status code: 403

```
{
  "error_code" : "APIG.1003",
  "error_msg" : "X-Auth-Token is invalid in the request",
  "solution_msg" : "Check whether the token in the request is valid and try again."
}
```

Status code: 404

```
{
  "error_code" : "common.01000001",
  "error_msg" : "response status exception, code: 404",
  "solution_msg" : "Please try to use correct info."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "The backend request timed out — check service health and network connectivity, then retry."
}
```

Status code: 500

```
{
  "error_code" : "common.00000500",
  "error_msg" : "internal error",
  "solution_msg" : "Contact operations for analysis."
}
```

Status Codes

Status Code	Description
202	Request submitted.
400	Invalid request.

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Status Code	Description
401	Unauthorized.
403	Request denied.
404	The requested resource could not be found.
408	Request timeout.
500	Internal server error.

6.1.5 Creating an Interactive Session

Function

This API is used to create an interactive session. This API is synchronous and is used for interactive tools such as Notebook to connect to a Ray cluster. In federation user authentication scenarios, the secret name corresponding to the federation user identity is returned.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/workspaces/{workspace_id}/ray-sessions

Table 6-65 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Request Parameters

Table 6-66 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. **Default Value**: N/A

Table 6-67 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Session name. **Constraints**: N/A **Range**: 1 to 47 characters. Only letters, digits, hyphens (-), periods (.), and spaces are allowed. **Default Value**: N/A
description	No	String	**Definition**: Description. **Constraints**: N/A **Range**: 0 to 1,024 characters. **Default Value**: N/A
endpoint_name	Yes	String	**Definition**: Endpoint name. **Constraints**: Complies with RFC 1035. Must start with a letter and end with a letter or digit. **Range**: 1 to 63 characters. A combination of lowercase letters, digits, and hyphens (-). **Default Value**: N/A

Response Parameters

Status code: 200

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Table 6-68 Response body parameters

Parameter	Type	Description
session_id	String	**Definition**: Session ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
secret_name	String	**Definition**: pod-agency secret name, used for mounting federation identity credentials. An empty string is returned if the scenario does not involve AI Hub federation authentication. **Range**: Up to 256 characters. Returns an empty string if left empty.
ray_grpc_server_port	String	**Definition**: Ray cluster gRPC connection port. **Range**: Up to 5 characters. Returns an empty string if left empty.

Status code: 400

Table 6-69 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 401

Table 6-70 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.

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Parameter	Type	Description
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 403

Table 6-71 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 404

Table 6-72 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 408

Table 6-73 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 500

Table 6-74 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Example Requests

Create an interactive session.

```
POST https://{endpoint}/v2/workspaces/{workspace_id}/ray-sessions

{
  "name" : "my-session",
  "description" : "Interactive session example",
  "endpoint_name" : "ray"
}
```

Example Responses

Status code: 200

```
{
  "session_id" : "ac8111bf-3601-4905-8ddd-b41d3e636a4e",
  "secret_name" : "pod_agency_myAgency_001234_20260717120000",
  "ray_grpc_server_port" : "10001"
}
```

Status code: 400

```
{
  "error_code" : "common.01000001",
  "error_msg" : "failed to read http request, please check your input, code: 400, reason: Type mismatch., cause: TypeMismatchException",
  "solution_msg" : "Check whether the request parameters comply with the API definition and try again."
}
```

Status code: 401

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```
{
  "error_code" : "APIG.1002",
  "error_msg" : "Incorrect token or token resolution failed",
  "solution_msg" : "Please check if auth token is included in the request header."
}
```

Status code: 403

```
{
  "error_code" : "APIG.1003",
  "error_msg" : "X-Auth-Token is invalid in the request",
  "solution_msg" : "Check whether the token in the request is valid and try again."
}
```

Status code: 404

```
{
  "error_code" : "common.01000001",
  "error_msg" : "response status exception, code: 404",
  "solution_msg" : "Please try to use correct info."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "The backend request timed out — check service health and network connectivity, then retry."
}
```

Status code: 500

```
{
  "error_code" : "common.00000500",
  "error_msg" : "internal error",
  "solution_msg" : "Contact operations for analysis."
}
```

Status Codes

Status Code	Description
200	Response body for creating an interactive session.
400	Invalid request.
401	Unauthorized.
403	Request denied.
404	The requested resource could not be found.
408	Request timeout.
500	Internal server error.

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6.1.6 Closing an Interactive Session

Function

This API is used to close an existing interactive session and set the session status to successful. This API is synchronous.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/workspaces/{workspace_id}/ray-sessions/{session_id}

Table 6-75 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
session_id	Yes	String	**Definition**: Session ID. For how to obtain the value, see the **session_id** returned after calling the **Creating an Interactive Session** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Request Parameters

Table 6-76 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	No	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. **Default Value**: N/A

Response Parameters

Status code: 200

Table 6-77 Response body parameters

Parameter	Type	Description
session_id	String	**Definition**: Session ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

Status code: 400

Table 6-78 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 401

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Table 6-79 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 403

Table 6-80 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 404

Table 6-81 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 408

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Table 6-82 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 500

Table 6-83 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Example Requests

Close an existing interactive session.

```
DELETE https://{endpoint}/v2/workspaces/{workspace_id}/ray-sessions/{session_id}
```

Example Responses

Status code: 200

```
{
  "session_id" : "ac8111bf-3601-4905-8ddd-b41d3e636a4e"
}
```

Status code: 400

```
{
  "error_code" : "common.01000001",
  "error_msg" : "failed to read http request, please check your input, code: 400, reason: Type mismatch.,
cause: TypeMismatchException",
  "solution_msg" : "Check whether the request parameters comply with the API definition and try again."
}
```

Status code: 401

```
{
  "error_code" : "APIG.1002",
```

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```
  "error_msg" : "Incorrect token or token resolution failed",
  "solution_msg" : "Please check if auth token is included in the request header."
}
```

Status code: 403

```
{
  "error_code" : "APIG.1003",
  "error_msg" : "X-Auth-Token is invalid in the request",
  "solution_msg" : "Check whether the token in the request is valid and try again."
}
```

Status code: 404

```
{
  "error_code" : "common.01000001",
  "error_msg" : "response status exception, code: 404",
  "solution_msg" : "Please try to use correct info."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "The backend request timed out — check service health and network connectivity, then retry."
}
```

Status code: 500

```
{
  "error_code" : "common.00000500",
  "error_msg" : "internal error",
  "solution_msg" : "Contact operations for analysis."
}
```

Status Codes

Status Code	Description
200	Response body for closing an interactive session.
400	Invalid request.
401	Unauthorized.
403	Request denied.
404	The requested resource could not be found.
408	Request timeout.
500	Internal server error.

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7 Spark APIs

7.1 Spark Job Management

7.1.1 Querying the Status of a Spark Job

Function

This API is used to query the status of a Spark job. It is synchronous. You can query the current execution status of a Spark job by job ID. The status includes **PENDING**, **QUEUED**, **RUNNING**, **CANCELING**, **CANCELED**, **FAILED**, **SUCCEED**, **QUEUED_TIMEOUT**, and **RUNNING_TIMEOUT**. The current status of the job is returned immediately after the API is called.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/spark-jobs/{job_id}/state

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Table 7-1 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. This can be viewed on the workspace page of the console. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
job_id	Yes	String	**Definition**: Spark job ID, used to uniquely identify a job. It can be obtained from the **job_id** in the response of the API for starting a Spark job or from the API for listing Spark jobs. **Constraints**: N/A **Range**: 1 to 64 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed. **Default Value**: N/A

Request Parameters

Table 7-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: The value can contain a maximum of 65,534 characters, with no character type restrictions. **Default Value**: N/A

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Response Parameters

Status code: 200

Table 7-3 Response body parameters

Parameter	Type	Description
job_id	String	**Definition**: Spark job ID, used to uniquely identify a Spark job. **Range**: 1 to 64 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed. Example: **6c98db52-cac2-4ff1-9a91-b7793e95557d**.
state	String	**Definition**: Spark job status. **Range** • **QUEUED**: Queued. • **PENDING**: Starting. • **RUNNING**: Running. • **CANCELING**: Canceling. • **CANCELED**: Canceled. • **FAILED**: Failed. • **QUEUED_TIMEOUT**: Queue timeout. • **RUNNING_TIMEOUT**: Running timeout. • **SUCCEED**: Succeeded.

Status code: 400

Table 7-4 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

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Status code: 401

Table 7-5 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 403

Table 7-6 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 500

Table 7-7 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.

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Parameter	Type	Description
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Example Requests

Query the current execution status of a specified Spark job, used to monitor the job progress and determine whether the job is complete.

```
GET /v2/workspaces/{workspace_id}/spark-jobs/{job_id}/state
```

Example Responses

Status code: 200

```
{
  "job_id" : "6c98db52-cac2-4ff1-9a91-b7793e95557d",
  "state" : "RUNNING"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter job_id",
  "solution_msg" : "Please check the input parameters according to the documentation(job_id for spark job)."
}
```

Status code: 401

```
{
  "error_code" : "AIDataLake.01011003",
  "error_msg" : "auth token not exists in header",
  "solution_msg" : "Please check if auth token is included in the request header."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
  "solution_msg" : "Contact operations for analysis."
}
```

Status Codes

Status Code	Description
200	Query succeeded.

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Status Code	Description
400	Invalid request parameter.
401	Authentication failed.
403	Insufficient permissions.
500	Internal server error.

7.1.2 Starting a Spark Job

Function

This API is used to start a Spark job. It is asynchronous. It supports Spark Jar jobs, Python jobs, and SQL script jobs. After calling this API, the job will be submitted to the queue for execution. After the job ID is returned, you need to confirm whether the job was successfully started through the job status query API. For details about how to query the job status, see **Querying the Status of a Spark Job**.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/workspaces/{workspace_id}/spark-jobs

Table 7-8 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. This can be viewed on the workspace page of the console. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Request Parameters

Table 7-9 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: The value can contain a maximum of 65,534 characters, with no character type restrictions. **Default Value**: N/A
X-Client-Token	No	String	**Definition**: Service transaction ID, used for link tracking and preventing duplicate submissions. **Constraints**: N/A **Range**: UUID format, 36 characters. **Default Value**: N/A

Table 7-10 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Spark job name, used to identify the job. **Constraints**: N/A **Range**: The value can contain 1 to 128 characters, with no character type restrictions. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
endpoint_name	Yes	String	**Definition**: Endpoint name, used to specify the Spark job execution environment. **Constraints**: N/A **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a lowercase letter and end with a lowercase letter or digit. **Default Value**: N/A
job_config	Yes	One of: • **SparkJarParameter** object • **SparkPyParameter** object • **SparkSqlScriptParameter** object	**Definition**: Job configuration parameters, used to specify the Spark job type and execution parameters. The corresponding parameter structure is automatically selected based on the job type: **SparkJarParameter** for **SPARK_JAR_JOB**, **SparkPyParameter** for **SPARK_PYTHON_JOB**, and **SparkSqlScriptParameter** for **SPARK_SQL_SCRIPTING_JOB**. **Constraints**: N/A
catalog_name	No	String	**Definition**: Catalog name, used to specify the data catalog used by the job. **Constraints**: N/A **Range**: The value can contain a maximum of 128 characters, with no character type restrictions. **Default Value**: N/A
job_agency	No	String	**Definition**: Custom agency name, used for the job to operate OBS objects, dump logs, access DLI metadata, etc. **Constraints**: N/A **Range**: The value can contain 1 to 64 characters, with no character type restrictions. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
resource_config	No	**SparkResourceConfig** object	**Definition**: Spark job resource configuration, used to configure the resource specifications and quantities for the Driver and Executor. **Constraints**: N/A
spark_config	No	Map<String,String>	**Definition**: User-defined Spark parameter configuration, used to optimize Spark job performance. The key in the map is the Spark configuration item name (for example, **spark.executor.memory**), and the value is the corresponding configuration value. Both key and value are strings, each with a maximum length of 1,024 characters. **Constraints**: A maximum of 100 parameters are supported.
image	No	**SparkJobImageConfig** object	**Definition**: Spark image configuration, used to specify the image information required for running the Spark job. **Constraints**: N/A
logging_config	No	**SparkLoggingConfig** object	**Definition**: Spark job logging configuration, used to configure the log levels for the Driver and Executor. **Constraints**: N/A
restore_strategy	No	**SparkRestoreStrategy** object	**Definition**: Job recovery policy configuration, used to define the retry mechanism and timeout control after a job failure. **Constraints**: N/A
labels	No	Array of **SparkJobLabel** objects	**Definition**: Job tag list, used to identify and categorize jobs. **Constraints**: The number of tags cannot exceed 16.

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Parameter	Mandatory	Type	Description
description	No	String	**Definition**: Spark job description, used to describe the purpose of the job. **Constraints**: N/A **Range**: The value can contain 1 to 512 characters, with no character type restrictions. **Default Value**: N/A

Table 7-11 SparkJarParameter

Parameter	Mandatory	Type	Description
main_class	No	String	**Definition**: Main class name, used to specify the entry class of the Spark Jar job. **Constraints**: N/A **Range**: The value can contain 1 to 512 characters, with no character type restrictions. **Default Value**: N/A
main_args	No	Array of strings	**Definition**: List of main class parameters, used to pass parameters to the entry class of the Spark Jar job. Multiple parameters are separated by spaces. **Constraints**: The number of parameters cannot exceed 100.
main_jar	No	String	**Definition**: Main Jar package path, used to specify the OBS path of the Jar package containing the main class of the Spark Jar job. **Constraints**: N/A **Range**: 1 to 512 characters, in OBS path format. Example: **obs://bucket_name/path/to/jar.jar**. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
dependency_jars	No	Array of strings	**Definition**: List of dependent Jar packages, used to specify the OBS paths of Jar packages that the Spark job depends on. **Constraints**: The number of dependent Jar packages cannot exceed 100.
dependency_files	No	Array of strings	**Definition**: List of dependent files, used to specify the OBS paths of files that the Spark job depends on. **Constraints**: The number of dependent files cannot exceed 100.
dependency_archives	No	Array of strings	**Definition**: List of dependent archive packages, used to specify the OBS paths of archive packages that the Spark job depends on. **Constraints**: The number of dependent archive packages cannot exceed 100.
dependency_py_files	No	Array of strings	**Definition**: List of dependent Python files, used to specify the OBS paths of Python packages that the Spark job depends on. **Constraints**: The number of dependent Python files cannot exceed 100.

Table 7-12 SparkPyParameter

Parameter	Mandatory	Type	Description
main_python_file	Yes	String	**Definition**: Main Python file path, used to specify the OBS path of the main file for the Python Spark job. **Constraints**: N/A **Range**: 1 to 512 characters, in OBS path format. Example: **obs://bucket/pyspark/pySpark_udf_python.py**. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
main_args	No	Array of strings	**Definition**: List of main file parameters, used to pass parameters to the Python Spark job. Multiple parameters are separated by spaces. **Constraints**: The number of parameters cannot exceed 100.
dependency_jars	No	Array of strings	**Definition**: List of dependent Jar packages, used to specify the OBS paths of Jar packages that the Spark job depends on. **Constraints**: The number of dependent Jar packages cannot exceed 100.
dependency_files	No	Array of strings	**Definition**: List of dependent files, used to specify the OBS paths of files that the Spark job depends on. **Constraints**: The number of dependent files cannot exceed 100.
dependency_archives	No	Array of strings	**Definition**: List of dependent archive packages, used to specify the OBS paths of archive packages that the Spark job depends on. **Constraints**: The number of dependent archive packages cannot exceed 100.
dependency_py_files	No	Array of strings	**Definition**: List of dependent Python files, used to specify the OBS paths of Python packages that the Spark job depends on. **Constraints**: The number of dependent Python files cannot exceed 100.

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Table 7-13 SparkSqlScriptParameter

Parameter	Mandatory	Type	Description
sql_scripting_file	Yes	String	**Definition**: SQL script file path, used to specify the OBS path of the script file for the Spark SQL script job. **Constraints**: N/A **Range**: 1 to 512 characters, in OBS path format. Example: **obs://bucket/sparksqlscript/script.sql**. **Default Value**: N/A
sql_scripting_parameters	No	Array of **SparkJobSqlScriptParameter** objects	**Definition**: List of SQL script placeholder parameters, used to configure parameterized variables in the SQL script. Each element in the array is a SparkJobSqlScriptParameter object, which contains the key, value, and type information of the placeholder. **Constraints**: The number of placeholder parameters cannot exceed 16.
dependency_jars	No	Array of strings	**Definition**: List of dependent Jar packages, used to specify the OBS paths of Jar packages that the Spark job depends on. **Constraints**: The number of dependent Jar packages cannot exceed 100.
sql_scripting_result_to_obs	No	Boolean	**Definition**: Result write to OBS flag, used to control whether the execution result of the SQL script job is written to OBS. **Constraints**: N/A **Range** • **true**: Results are written to OBS. • **false**: Results are not written to OBS. **Default Value**: N/A

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Table 7-14 SparkJobSqlScriptParameter

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: Placeholder key, used to identify the parameter name in the SQL script. **Constraints**: N/A **Range**: The value can contain 1 to 128 characters, with no character type restrictions. **Default Value**: N/A
value	Yes	String	**Definition**: Placeholder value, used to pass the actual parameter value to the SQL script. The value must be a string, and the format is determined by value_type. The input formats of **DATE** and **TIMESTAMP** are the same (Unix timestamp in milliseconds), but they are converted to different data types. The format of each type is as follows: • **STRING**: String, for example, **xxx**. • **DECIMAL**: Fixed-point number, for example, **12.1**. • **INTEGER**: Integer, for example, **13**. • **DATE**: Unix timestamp (milliseconds). Example: **1779188276372**, used as the DATE type. • **TIMESTAMP**: Unix timestamp (milliseconds). Example: **1779188276372**, used as the TIMESTAMP type. **Constraints**: N/A **Range**: 1 to 512 characters. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
value_type	No	String	**Definition**: Placeholder type, used to identify the data type of the placeholder value. **Constraints**: N/A **Range** • **STRING**: String type. • **DECIMAL**: Fixed-point number type. • **INTEGER**: Integer type. • **DATE**: Date type. • **TIMESTAMP**: Timestamp type. **Default Value**: **STRING**.

Table 7-15 SparkResourceConfig

Parameter	Mandatory	Type	Description
driver_resource_spec	No	ResourceSpec object	**Definition**: Driver resource specification, used to configure resources such as CPU, memory, and disk for the Driver. **Constraints**: N/A
executor_number	No	Integer	**Definition**: Number of Executors, used to specify the maximum number of Executors for the Spark job. If the value is greater than 0, dynamic resource allocation is enabled (the minimum number of executors is 1, the initial number of executors is 1, and the maximum number of executors is the configured value). If the value is **0**, this parameter does not take effect, meaning dynamic resource allocation is disabled. **Constraints**: N/A **Range**: 0 to 65,535. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
executor_resource_spec	No	ResourceSpec object	**Definition**: Executor resource specification, used to configure resources such as CPU, memory, and disk for the Executor. **Constraints**: N/A

Table 7-16 ResourceSpec

Parameter	Mandatory	Type	Description
cpu	No	Integer	**Definition**: Number of CPU cores, in millicores, used to specify the CPU resources required for job execution. **Constraints**: N/A **Range**: 1000 to 48000 **Default Value**: **1000**
memory	No	Integer	**Definition**: Memory size, in MB. This parameter specifies the memory resources required for job execution. **Constraints**: N/A **Range**: 1024 to 393216 **Default Value**: **4096**
disk	No	Integer	**Definition**: Local disk size, used to specify the local disk resources for the Spark job Driver and Executor. **Constraints**: N/A **Range**: 0 to 994, in GB. **Default Value**: N/A

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Table 7-17 SparkJobImageConfig

Parameter	Mandatory	Type	Description
image_id	Yes	String	**Definition**: Image ID, used to specify the image required for running the Spark job. This can be viewed on the image page of the console or obtained by calling the API for listing images. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
image_version_id	Yes	String	**Definition**: Image version ID, used to specify the image version required for running the Spark job. This can be viewed on the image version page of the console or obtained by calling the API for listing image versions. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Table 7-18 SparkLoggingConfig

Parameter	Mandatory	Type	Description
driver_root_logger_level	No	String	**Definition**: Driver root log level, used to control the overall log level of the Driver output. **Constraints**: N/A **Range** • **DEBUG**: Debug level. • **TRACE**: Trace level. • **WARN**: Warning level. • **INFO**: Information level. • **ERROR**: Error level. **Default Value**: **INFO**

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Parameter	Mandatory	Type	Description
driver_loggers_level_of_class	No	Array of **SparkClassLoggerLevel** objects	**Definition**: List of Driver class-level log configurations, used to configure the log levels for specified classes. Each element in the array is a SparkClassLoggerLevel object, which contains the class name and log level. **Constraints**: A maximum of 20 classes can be configured.
executor_root_logger_level	No	String	**Definition**: Executor root log level, used to control the overall log level of the Executor output. **Constraints**: N/A **Range** • **DEBUG**: Debug level. • **TRACE**: Trace level. • **WARN**: Warning level. • **INFO**: Information level. • **ERROR**: Error level. **Default Value**: **INFO**
executor_loggers_level_of_class	No	Array of **SparkClassLoggerLevel** objects	**Definition**: List of Executor class-level log configurations, used to configure the log levels for specified classes. Each element in the array is a SparkClassLoggerLevel object, which contains the class name and log level. **Constraints**: A maximum of 20 classes can be configured.

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Table 7-19 SparkClassLoggerLevel

Parameter	Mandatory	Type	Description
logger_name	No	String	**Definition**: Log class name, used to specify the class name for which the log level needs to be configured. **Constraints**: N/A **Range**: The value can contain 1 to 256 characters, with no character type restrictions. **Default Value**: N/A
logger_level	No	String	**Definition**: Log level, used to control the verbosity of log output for the class. **Constraints**: N/A **Range** • **DEBUG**: Debug level. • **TRACE**: Trace level. • **WARN**: Warning level. • **INFO**: Information level. • **ERROR**: Error level. **Default Value**: **INFO**

Table 7-20 SparkRestoreStrategy

Parameter	Mandatory	Type	Description
max_retry	No	Integer	**Definition**: Maximum retry count, used to control the number of automatic retries after a job failure. If the configured value is greater than 0, failure retry is automatically enabled. If not configured or configured as 0, job failure retry is disabled. **Constraints**: N/A **Range**: 0 to 65535. **Default Value**: **0**.

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Parameter	Mandatory	Type	Description
retry_delay	No	Integer	**Definition**: Retry interval, used to specify the time interval between each retry in the job failure retry mechanism, in seconds. **Constraints**: N/A **Range**: 1 to 3600. **Default Value**: 30.
queued_timeout	No	Integer	**Definition**: Queue timeout duration, used to specify the maximum time to wait for a job to start running after submission, in minutes. If the job has not started running after this time, the job fails. **Constraints**: N/A **Range**: 10 to 180 **Default Value**: **180**
running_timeout	No	Integer	**Definition**: Running timeout duration, used to specify the maximum runtime for the job, in minutes. If the job has not completed after this time, the job will be canceled and marked as running timeout. **Constraints**: N/A **Range**: 10 to 525600. **Default Value**: N/A

Table 7-21 SparkJobLabel

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: Tag key, used to identify the unique key name of the tag. **Constraints**: N/A **Range**: The value can contain 1 to 128 characters, with no character type restrictions. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
value	Yes	String	**Definition**: Tag value, used to identify the specific value of the tag. **Constraints**: N/A **Range**: The value can contain 1 to 512 characters, with no character type restrictions. **Default Value**: N/A

Response Parameters

Status code: 201

Table 7-22 Response body parameters

Parameter	Type	Description
job_id	String	**Definition**: Spark job ID, used to uniquely identify the started Spark job. **Range**: 1 to 64 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed. Example: **1ee7d9db-90ec-4b71-89b8-0de936dade77**.

Status code: 400

Table 7-23 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 401

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Table 7-24 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 403

Table 7-25 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 500

Table 7-26 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

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Example Requests

- Start a Spark JAR job with the name **spark-jar-job-example**, endpoint **spark-endpoint**, job type **SPARK_JAR_JOB**, JAR path **obs://bucket/path/job.jar**, entry parameter **--input obs://bucket/input --output obs://bucket/output**, executor count **2**, driver resources 2 vCPUs and 4 GB memory, and executor resources 2 vCPUs and 4 GB memory.

```
POST /v2/workspaces/{workspace_id}/spark-jobs

{
  "name" : "spark-jar-job-example",
  "endpoint_name" : "spark-endpoint",
  "job_config" : {
    "type" : "SPARK_JAR_JOB",
    "main_class" : "com.example.SparkJobDriver",
    "main_jar" : "obs://bucket/path/job.jar",
    "main_args" : [ "--input", "obs://bucket/input", "--output", "obs://bucket/output" ]
  },
  "resource_config" : {
    "executor_number" : 2,
    "driver_resource_spec" : {
      "cpu" : 2000,
      "memory" : 4096
    },
    "executor_resource_spec" : {
      "cpu" : 2000,
      "memory" : 4096
    }
  }
}
```

- Start a Python job with the name **python-job-example**, endpoint **spark-endpoint**, job type **SPARK_PYTHON_JOB**, Python path **obs://bucket/path/job.py**, entry parameter **--input-path obs://bucket/input**, executor count **2**, driver resources 2 vCPUs and 4 GB memory, and executor resources 2 vCPUs and 4 GB memory.

```
POST /v2/workspaces/{workspace_id}/spark-jobs

{
  "name" : "python-job-example",
  "endpoint_name" : "spark-endpoint",
  "job_config" : {
    "type" : "SPARK_PYTHON_JOB",
    "main_python_file" : "obs://bucket/path/job.py",
    "main_args" : [ "--input-path", "obs://bucket/input" ]
  },
  "resource_config" : {
    "executor_number" : 2,
    "driver_resource_spec" : {
      "cpu" : 2000,
      "memory" : 4096
    },
    "executor_resource_spec" : {
      "cpu" : 2000,
      "memory" : 4096
    }
  }
}
```

Example Responses

Status code: 201

```
{
  "job_id" : "1ee7d9db-90ec-4b71-89b8-0de936dade77"
}
```

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Status code: 400

```
{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter main_jar",
  "solution_msg" : "Please check the input parameters according to the documentation(main_jar for jar job)."
}
```

Status code: 401

```
{
  "error_code" : "AIDataLake.01011003",
  "error_msg" : "auth token not exists in header",
  "solution_msg" : "Please check if auth token is included in the request header."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
  "solution_msg" : "Contact operations for analysis."
}
```

Status Codes

Status Code	Description
201	Startup succeeded.
400	Invalid request parameter.
401	Authentication failed.
403	Insufficient permissions.
500	Internal server error.

7.1.3 Listing Spark Jobs

Function

This API is used to list Spark jobs in a workspace. This API is synchronous. It supports filtering by job ID, job name, job status, job type, creation time, etc., and supports pagination. After a successful call, the job list data is returned directly.

Calling Method

For details, see **Calling APIs**.

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URI

GET /v2/workspaces/{workspace_id}/spark-jobs

Table 7-27 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. This can be viewed on the workspace page of the console. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Table 7-28 Query Parameters

Parameter	Mandatory	Type	Description
marker	No	String	**Definition**: Job ID cursor position, used for pagination. **Constraints**: For the first query, this parameter can be omitted. For subsequent queries, pass the **next_marker** value returned in the previous response. **Range**: Fixed at 36 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed. **Default Value**: N/A
limit	No	Integer	**Definition**: Number of records to query, used for pagination. **Constraints**: N/A **Range**: Integer from 1 to 100. **Default Value**: **10**.

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Parameter	Mandatory	Type	Description
page_reverse	No	Boolean	**Definition**: Whether to query in reverse page order, which specifies the pagination direction. **Constraints**: When set to **true**, the **marker** parameter must be specified. **Range** • **true**: Queries the previous page of data. • **false**: Queries the next page of data. **Default Value**: **false**
name	No	String	**Definition**: Job name, used for fuzzy search of jobs. **Constraints**: N/A **Range**: The value can contain 0 to 128 characters, with no character type restrictions. **Default Value**: N/A
create_time_after	No	Long	**Definition**: Used to query jobs created after this timestamp. **Constraints**: N/A **Range**: Minimum value: **1764061598000**. Unix timestamp in milliseconds. **Default Value**: N/A
create_time_before	No	Long	**Definition**: Used to query jobs created before this timestamp. **Constraints**: N/A **Range**: Minimum value: **1764061598000**. Unix timestamp in milliseconds. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
endpoint_name	No	String	**Definition**: Endpoint name, used to specify the Spark job execution environment. **Constraints**: N/A **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a lowercase letter and end with a lowercase letter or digit. **Default Value**: N/A
states	No	Array of strings	**Definition**: List of Spark job statuses, used to filter and query jobs with specific statuses. The array elements are of the String type. The meanings of the values are as follows: • **PENDING**: Starting. • **QUEUED**: Queued. • **RUNNING**: Running. • **CANCELING**: Canceling. • **CANCELED**: Canceled. • **FAILED**: Failed. • **SUCCEED**: Succeeded. • **QUEUED_TIMEOUT**: Queued timeout. • **RUNNING_TIMEOUT**: Running timeout. **Constraints**: A maximum of 10 statuses can be queried. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
job_type	No	String	**Definition**: Job type, used to filter and query jobs of a specific type. **Constraints**: N/A **Range** • **SPARK_JAR_JOB**: Spark JAR job. • **SPARK_PYTHON_JOB**: Python Spark job. • **SPARK_SQL_SCRIPTING_JOB**: SQL script job (reserved type). **Default Value**: N/A
job_id	No	String	**Definition**: Spark job ID, used for precise query of a specific job. It can be obtained from the **job_id** in the response of the API for starting a Spark job or from the API for listing Spark jobs. **Constraints**: N/A **Range**: 1 to 64 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed. **Default Value**: N/A
create_user_id	No	String	**Definition**: Spark job creator ID, used to filter and query jobs created by a specific user. This can be obtained by calling the API for querying user information or viewed on the user management page of the console. **Constraints**: N/A **Range**: The value can contain 1 to 256 characters, with no character type restrictions. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
create_user_name	No	String	**Definition**: Spark job creator name, which is used to filter and query jobs created by a specific user. **Constraints**: N/A **Range**: The value can contain 1 to 256 characters, with no character type restrictions. **Default Value**: N/A
labels	No	String	**Definition**: Job tags, used to filter and query jobs by tags. Multiple labels can be used for filtering. Format: **key=value**. Multiple tags are separated by commas (,). **Constraints**: In the URL, **=** must be escaped as **%3D**. Example: **labels=k1%3Dv1,k2%3Dv2**. **Range**: The value can contain 1 to 1,024 characters, with no character type restrictions. **Default Value**: N/A

Request Parameters

Table 7-29 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: The value can contain a maximum of 65,534 characters, with no character type restrictions. **Default Value**: N/A

Response Parameters

Status code: 200

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Table 7-30 Response body parameters

Parameter	Type	Description
page_info	**SparkMarkerPageInfo** object	**Definition**: Pagination information, including the cursor of the previous page, cursor of the next page, and the number of records on the current page.
jobs	Array of **ListSparkJobResponseDto** objects	**Definition**: Spark job list, containing detailed job information.

Table 7-31 SparkMarkerPageInfo

Parameter	Type	Description
next_marker	String	**Definition**: Next page cursor, used to identify the starting position of the next page of data. An empty value indicates no more data. **Range**: Fixed at 36 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed. Example: **6c98db52-cac2-4ff1-9a91-b7793e95557d**.
previous_marker	String	**Definition**: Previous page cursor, which is used to identify the start position of the previous page of data. If this parameter is left blank, the current page is the first page. **Range**: Fixed at 36 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed.
current_count	Integer	**Definition**: Number of data items on the current page, used to identify the amount of data returned in the current response. **Range**: Integer greater than or equal to 0. Maximum value: **100**.

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Table 7-32 ListSparkJobResponseDto

Parameter	Type	Description
job_id	String	**Definition**: Spark job ID, used to uniquely identify a job. **Range**: 1 to 64 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed. Example: **80ceaaff-3cfc-4162-a56f-70031ea4fa91**.
client_token	String	**Definition**: Spark job transaction ID, used to prevent duplicate submissions. **Range**: UUID format, 36 characters. Example: **xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx**.
name	String	**Definition**: Spark job name, used to identify the job. **Range**: 1 to 128 characters.
endpoint_name	String	**Definition**: Endpoint name, used to specify the Spark job execution environment. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a lowercase letter and end with a lowercase letter or digit.
endpoint_id	String	**Definition**: Endpoint ID, which uniquely identifies the Spark job execution environment. **Range**: UUID format, 36 characters.
job_type	String	**Definition**: Job type, used to identify the type of the job. **Range** • **SPARK_JAR_JOB**: Spark JAR job. • **SPARK_PYTHON_JOB**: Python Spark job. • **SPARK_SQL_SCRIPTING_JOB**: SQL script job (reserved type).

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Parameter	Type	Description
state	String	**Definition**: Spark job status, used to identify the current execution status of the job. **Range** • **PENDING**: Starting. • **QUEUED**: Queued. • **RUNNING**: Running. • **CANCELING**: Canceling. • **CANCELED**: Canceled. • **FAILED**: Failed. • **SUCCEED**: Succeeded. • **QUEUED_TIMEOUT**: Queue timeout. • **RUNNING_TIMEOUT**: Running timeout.
state_message	String	**Definition**: Job status message, displaying relevant information when the job ends abnormally. **Range**: 0 to 512 characters.
retry_times	Integer	**Definition**: Job retry count, used to record the number of retries after a job failure. **Range**: Minimum value: **0**.
create_time	Long	**Definition**: Job creation time, used to record when the job was submitted. The value is a Unix timestamp in milliseconds. **Range**: N/A
start_time	Long	**Definition**: Job start time, used to record when the job actually started execution. The value is a Unix timestamp in milliseconds. **Range**: N/A
end_time	Long	**Definition**: Job end time, used to record when the job execution completed. The value is a Unix timestamp in milliseconds. **Range**: N/A
create_user	SparkCreateUser object	**Definition**: Information about the user who creates the job.

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Parameter	Type	Description
log_url	String	**Definition**: Log archive path (OBS URL), used to view job execution logs. **Range**: OBS URL format, 1 to 1,024 characters.

Table 7-33 SparkCreateUser

Parameter	Type	Description
user_id	String	**Definition**: User ID of the job creator, used to identify the job creator. **Range**: The value can contain 1 to 256 characters, with no character type restrictions.
user_name	String	**Definition**: User name of the job creator, used to identify the job creator. **Range**: The value can contain 1 to 256 characters, with no character type restrictions.

Status code: 400

Table 7-34 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 401

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Table 7-35 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 403

Table 7-36 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 500

Table 7-37 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

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Example Requests

Filter by job status to query Spark jobs in **SUCCEED** state, with two records per page.

```
GET /v2/workspaces/{workspace_id}/spark-jobs?limit=2&states=SUCCEED
```

Example Responses

Status code: 200

```
{
  "page_info" : {
    "next_marker" : "1ee7d9db-90ec-4b71-89b8-0de936dade77",
    "current_count" : 2
  },
  "jobs" : [ {
    "job_id" : "80ceaaff-3cfc-4162-a56f-70031ea4fa91",
    "client_token" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx",
    "name" : "spark-job-example",
    "endpoint_name" : "my-spark-endpoint",
    "state" : "SUCCEED",
    "job_type" : "SPARK_JAR_JOB",
    "retry_times" : 1,
    "create_time" : 1764061598000,
    "start_time" : 1764061648000,
    "end_time" : 1764061898000,
    "create_user" : {
      "user_id" : "user123",
      "user_name" : "admin"
    },
    "log_url" : "obs://my-bucket/aidatalake/workspace_52edbbd3e5f6470a9c1b8d2e3f4a5b6c/spark/
endpoint_b242c8569d1e4f7a8c3b5d6e2f0a4c71/jobs/logs/2025_11_25/80ceaaff-3cfc-4162-
a56f-70031ea4fa91/1/spark_ai-datalake-spark-80ceaaff-driver_spark-job-b242c856/spark.log"
  }, {
    "job_id" : "1ee7d9db-90ec-4b71-89b8-0de936dade77",
    "client_token" : "yyyyyyyy-yyyy-yyyy-yyyy-yyyyyyyyyyyy",
    "name" : "spark-python-job",
    "endpoint_name" : "my-spark-endpoint",
    "state" : "SUCCEED",
    "job_type" : "SPARK_PYTHON_JOB",
    "retry_times" : 1,
    "create_time" : 1764061698000,
    "start_time" : 1764061748000,
    "end_time" : 1764061898000,
    "create_user" : {
      "user_id" : "user456",
      "user_name" : "developer"
    },
    "log_url" : "obs://my-bucket/aidatalake/workspace_52edbbd3e5f6470a9c1b8d2e3f4a5b6c/spark/
endpoint_b242c8569d1e4f7a8c3b5d6e2f0a4c71/jobs/logs/
2025_11_25/1ee7d9db-90ec-4b71-89b8-0de936dade77/1/spark_ai-datalake-spark-1ee7d9db-driver_spark-
job-b242c856/spark.log"
  } ]
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter name",
  "solution_msg" : "Please check the input parameters according to the documentation(name for spark job)."
}
```

Status code: 401

```
{
  "error_code" : "AIDataLake.01011003",
```

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```
  "error_msg" : "auth token not exists in header",
  "solution_msg" : "Please check if auth token is included in the request header."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
  "solution_msg" : "Contact operations for analysis."
}
```

Status Codes

Status Code	Description
200	Spark jobs successfully listed.
400	Invalid request parameter.
401	Authentication failed.
403	Insufficient permissions.
500	Internal server error.

7.1.4 Viewing Spark Job Details

Function

This API is used to view the detailed information of a specified Spark job. It is synchronous. It returns complete information including job ID, job name, job status, job configuration, resource configuration, image configuration, etc. After a successful call, the job details are returned directly.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/spark-jobs/{job_id}

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Table 7-38 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. This can be viewed on the workspace page of the console. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
job_id	Yes	String	**Definition**: Spark job ID, used to uniquely identify a job. It can be obtained from the **job_id** in the response of the API for starting a Spark job or from the API for listing Spark jobs. **Constraints**: N/A **Range**: 1 to 64 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed. **Default Value**: N/A

Request Parameters

Table 7-39 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: The value can contain a maximum of 65,534 characters, with no character type restrictions. **Default Value**: N/A

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Response Parameters

Status code: 200

Table 7-40 Response body parameters

Parameter	Type	Description
job_id	String	**Definition**: Spark job ID, used to uniquely identify a job. **Range**: 1 to 64 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed. Example: **80ceaaff-3cfc-4162-a56f-70031ea4fa91**.
client_token	String	**Definition**: Spark job transaction ID, used to prevent duplicate submissions. **Range**: UUID format, 36 characters. Example: **xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx**.
name	String	**Definition**: Spark job name, used to identify the job. **Range**: The value can contain 1 to 128 characters, with no character type restrictions.
endpoint_name	String	**Definition**: Endpoint name, used to specify the Spark job execution environment. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a lowercase letter and end with a lowercase letter or digit.
endpoint_id	String	**Definition**: Endpoint ID, which uniquely identifies the Spark job execution environment. **Range**: UUID format, 36 characters.
catalog_name	String	**Definition**: Catalog name, used to specify the data catalog used by the job. **Range**: The value can contain 1 to 128 characters, with no character type restrictions.

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Parameter	Type	Description
job_agency	String	**Definition**: Name of the custom agency, used for the job to operate OBS objects, dump logs, access DLI metadata, etc. **Range**: The value can contain 1 to 64 characters, with no character type restrictions.
state	String	**Definition**: Spark job status, used to identify the current execution status of the job. **Range** • **PENDING**: The job is starting. • **QUEUED**: The job is queuing. • **RUNNING**: The job is running. • **CANCELING**: The job is being canceled. • **CANCELED**: The job has been canceled. • **FAILED**: The job failed. • **QUEUED_TIMEOUT**: The job queuing timed out. • **RUNNING_TIMEOUT**: The job running timed out. • **SUCCEED**: The job succeeded.
state_message	String	**Definition**: Job status message, displaying relevant information when the job ends abnormally. **Range**: The value can contain 0 to 512 characters, with no character type restrictions.
job_config	One of: • **ShowSparkJarParameterResponse** object • **ShowSparkPyParameterResponse** object • **ShowSparkScriptSQLParameterResponse** object	**Definition**: Job configuration information, including job type, entry parameters, dependent packages, etc.

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Parameter	Type	Description
resource_config	**ShowSparkResourceConfigResponse** object	**Definition**: Resource configuration information, including resource configuration for the Driver and Executor.
restore_strategy	**ShowSparkRestoreStrategyResponse** object	**Definition**: Running and recovery policy configuration, including retry count and interval information.
spark_config	Map<String,String>	**Definition**: Custom Spark parameter configuration. The key in the map is the Spark configuration item name (for example, **spark.executor.memory**), and the value is the corresponding configuration value. Both key and value are strings, each with a maximum length of 1,024 characters.
logging_config	**ShowSparkLoggingConfigResponse** object	**Definition**: Logging configuration information, including log level configuration for the Driver and Executor.
image	**ShowSparkJobImageConfigResponse** object	**Definition**: Image configuration information, including image ID and version information.
retry_times	Integer	**Definition**: Job retry count, used to record the number of retries after a job failure. **Range**: Minimum value: **0**.
labels	Array of **ShowSparkJobLabelResponse** objects	**Definition**: Job tag list, used to identify and categorize jobs.
create_time	Long	**Definition**: Job creation time, used to record when the job was submitted. The value is a Unix timestamp in milliseconds. **Range**: N/A
start_time	Long	**Definition**: Job start time, used to record when the job actually started execution. The value is a Unix timestamp in milliseconds. **Range**: N/A

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Parameter	Type	Description
end_time	Long	**Definition**: Job end time, used to record when the job execution completed. The value is a Unix timestamp in milliseconds. **Range**: N/A
create_user	SparkCreateUser object	**Definition**: Information about the user who creates the job.
log_url	String	**Definition**: Log archive path (OBS URL), used to view job execution logs. **Range**: OBS URL format, 1 to 1,024 characters.
description	String	**Definition**: Spark job description, used to describe the purpose of the job. **Range**: The value can contain 0 to 512 characters, with no character type restrictions.

Table 7-41 ShowSparkJarParameterResponse

Parameter	Type	Description
main_class	String	**Definition**: Entry class for the Spark Jar job, used to specify the main class name of the job. **Range**: Full Java class path format. Example: **com.example.SparkJob**.
main_args	Array of strings	**Definition**: List of entry class parameters for the Spark Jar job, used to pass job execution parameters.
main_jar	String	**Definition**: OBS path of the Jar package containing the main class of the Spark Jar job, used to specify the main Jar package of the job. **Range**: OBS URL format, 1 to 512 characters. Example: **obs://bucket/jars/spark-job.jar**.
dependency_jars	Array of strings	**Definition**: List of dependent Jar packages, used to specify the OBS paths of Jar packages that the Spark job depends on.

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Parameter	Type	Description
dependency_files	Array of strings	**Definition**: List of dependent files, used to specify the OBS paths of files that the Spark job depends on.
dependency_archives	Array of strings	**Definition**: List of dependent archive packages, used to specify the OBS paths of archive packages that the Spark job depends on.
dependency_py_files	Array of strings	**Definition**: List of dependent Python files, used to specify the OBS paths of Python packages that the Spark job depends on.

Table 7-42 ShowSparkPyParameterResponse

Parameter	Type	Description
main_python_file	String	**Definition**: Main Python file path, used to specify the OBS path of the main file for the Python Spark job. **Range**: OBS URL format, 1 to 512 characters. Example: **obs://bucket/pyspark/pySpark_udf_python.py**.
main_args	Array of strings	**Definition**: Parameter list of the main file of the Spark Python job, which is used to pass job execution parameters.
dependency_jars	Array of strings	**Definition**: List of dependent Jar packages, used to specify the OBS paths of Jar packages that the Spark job depends on.
dependency_files	Array of strings	**Definition**: List of dependent files, used to specify the OBS paths of files that the Spark job depends on.
dependency_archives	Array of strings	**Definition**: List of dependent archive packages, used to specify the OBS paths of archive packages that the Spark job depends on.
dependency_py_files	Array of strings	**Definition**: List of dependent Python files, used to specify the OBS paths of Python packages that the Spark job depends on.

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Table 7-43 ShowSparkScriptSQLParameterResponse

Parameter	Type	Description
sql_scripting_file	String	**Definition**: OBS path of the SQL script file for a Spark SQL script job, which specifies the SQL script to be executed by the job. **Range**: OBS URL format, 1 to 512 characters. Example: **obs://bucket/sparksql/script.sql**.
sql_scripting_parameters	Array of **SparkJobSqlScriptParameter** objects	**Definition**: List of SQL script placeholder parameters, used to pass parameter values to placeholders in the SQL script.
dependency_jars	Array of strings	**Definition**: List of dependent Jar packages, used to specify the OBS paths of Jar packages that the Spark job depends on.
sql_scripting_result_to_obs	Boolean	**Definition**: Whether to write SQL script results to OBS, used to control the output method of query results. **Range** • **true**: Results are written to OBS. • **false**: Results are not written to OBS.
result	**SparkSqlScriptingResultResponse** object	**Definition**: SQL script query result information, including the result format and storage path.

Table 7-44 SparkJobSqlScriptParameter

Parameter	Type	Description
key	String	**Definition**: Placeholder key, used to identify the parameter name in the SQL script. **Range**: The value can contain 1 to 128 characters, with no character type restrictions.

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Parameter	Type	Description
value	String	**Definition**: Placeholder value, used to pass the actual parameter value to the SQL script. The value must be a string, and the format is determined by value_type. The input formats of **DATE** and **TIMESTAMP** are the same (Unix timestamp in milliseconds), but they are converted to different data types. The format of each type is as follows: • **STRING**: String, for example, **xxx**. • **DECIMAL**: Fixed-point number, for example, **12.1**. • **INTEGER**: Integer, for example, **13**. • **DATE**: Unix timestamp (milliseconds). Example: **1779188276372**, used as the DATE type. • **TIMESTAMP**: Unix timestamp (milliseconds). Example: **1779188276372**, used as the TIMESTAMP type. **Range**: 1 to 512 characters.
value_type	String	**Definition**: Placeholder type, used to identify the data type of the placeholder value. **Range** • **STRING**: String type. • **DECIMAL**: Fixed-point number type. • **INTEGER**: Integer type. • **DATE**: Date type. • **TIMESTAMP**: Timestamp type.

Table 7-45 SparkSqlScriptingResultResponse

Parameter	Type	Description
result_format	String	**Definition**: Query SQL result format, used to specify the output format of the result data. **Range**: The CSV format is supported.

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Parameter	Type	Description
result_path	String	**Definition**: OBS path for query SQL results, used to specify the storage location of the result data. **Range**: OBS URL format, 1 to 1,024 characters. Example: **obs://bucket/results/result.csv**.

Table 7-46 ShowSparkResourceConfigResponse

Parameter	Type	Description
driver_resource_spec	**ShowResourceSpecResponse** object	**Definition**: Driver resource configuration, including CPU, memory, disk, and other information.
executor_resource_spec	**ShowResourceSpecResponse** object	**Definition**: Executor resource configuration, including CPU, memory, disk, and other information.
executor_number	Integer	**Definition**: Maximum number of Executors for the Spark job, used for dynamic resource allocation. **Range**: 0 to 65535. The value **0** indicates that dynamic resource allocation is disabled. A value greater than 0 indicates the maximum number of executors for dynamic resource allocation, which corresponds to the following Spark parameters: **spark.dynamicAllocation.enabled** is **true**, **spark.dynamicAllocation.minExecutors** is **1**, **spark.dynamicAllocation.maxExecutors** is this value, and **spark.dynamicAllocation.initialExecutors** is **1**.

Table 7-47 ShowResourceSpecResponse

Parameter	Type	Description
cpu	Integer	**Definition**: Number of CPU milicores, used to specify the CPU resources for the Driver or Executor. **Range**: Minimum value: **1000**.

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Parameter	Type	Description
memory	Integer	**Definition**: Memory size, used to specify the memory resources for the Driver or Executor. **Range**: 1024 to 393216, in MB.
disk	Integer	**Definition**: Local disk size, used to specify the local disk capacity for the Driver or Executor. **Range**: Minimum value: **0**. The unit is GB.

Table 7-48 ShowSparkRestoreStrategyResponse

Parameter	Type	Description
max_retry	Integer	**Definition**: Maximum retry count, used to control automatic retries after a job failure. **Range**: A value greater than 0 enables failure retry. A value of 0 disables retry.
retry_delay	Integer	**Definition**: Retry interval, used to specify the waiting time between each retry. **Range**: 1 to 3600, in seconds.
queued_timeout	Integer	**Definition**: Queuing timeout duration, used to specify the maximum waiting time after a job is submitted. **Range**: The unit is minute. The minimum value is **10**, and the maximum value is **180**. If the job has not started running after this time, the job fails.
running_timeout	Integer	**Definition**: Running timeout duration, used to specify the maximum runtime for the job. **Range**: 10 to 525600, in minutes. If the job has not completed after this time, the job will be canceled and marked as failed.

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Table 7-49 ShowSparkLoggingConfigResponse

Parameter	Type	Description
driver_root_logger_level	String	**Definition**: Driver root log level, used to control the overall log output level of the Driver. **Range** • **DEBUG**: Debug level. • **TRACE**: Trace level. • **WARN**: Warning level. • **INFO**: Information level. • **ERROR**: Error level.
driver_loggers_level_of_class	Array of **ShowSparkClassLoggerLevelResponse** objects	**Definition**: List of Driver class log level configurations, used to set specific log levels for specified classes.
executor_root_logger_level	String	**Definition**: Executor root log level, used to control the overall log output level of the Executor. **Range** • **DEBUG**: Debug level. • **TRACE**: Trace level. • **WARN**: Warning level. • **INFO**: Information level. • **ERROR**: Error level.
executor_loggers_level_of_class	Array of **ShowSparkClassLoggerLevelResponse** objects	**Definition**: List of Executor class log level configurations, used to set specific log levels for specified classes.

Table 7-50 ShowSparkClassLoggerLevelResponse

Parameter	Type	Description
logger_name	String	**Definition**: Name of the class for which logs are output, used to specify the class that requires log level configuration. **Range**: Full class path format. Example: **com.aaa.bbb.ccc**. 1 to 256 characters.

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Parameter	Type	Description
logger_level	String	**Definition**: Log level, used to control the log output level for the class. **Range** • **DEBUG**: Debug level. • **TRACE**: Trace level. • **WARN**: Warning level. • **INFO**: Information level. • **ERROR**: Error level.

Table 7-51 ShowSparkJobImageConfigResponse

Parameter	Type	Description
image_id	String	**Definition**: Image ID, which uniquely identifies the image used by a Spark job. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
image_version_id	String	**Definition**: Image version, which specifies the version number of the image. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
release_version	String	**Definition**: Version information of the Spark job (AIDataLake.xxx(Spark x.xx.x, JRE x.xx.x)). **Range**: 1 to 512 characters.
image_version_type	String	**Definition**: Image version type used by the Spark job. **Range** • **STABLE**: Stable. • **RECOMMEND**: Recommended. • **BETA**: Beta.

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Table 7-52 ShowSparkJobLabelResponse

Parameter	Type	Description
key	String	**Definition**: Tag key, used to identify the name of the tag. **Range**: 1 to 128 characters.
value	String	**Definition**: Tag value, used to identify the specific content of the tag. **Range**: 0 to 512 characters

Table 7-53 SparkCreateUser

Parameter	Type	Description
user_id	String	**Definition**: User ID of the job creator, used to identify the job creator. **Range**: The value can contain 1 to 256 characters, with no character type restrictions.
user_name	String	**Definition**: User name of the job creator, used to identify the job creator. **Range**: The value can contain 1 to 256 characters, with no character type restrictions.

Status code: 400

Table 7-54 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 401

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Table 7-55 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 403

Table 7-56 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 500

Table 7-57 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

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Example Requests

View the complete detailed information of a specified Spark job.

```
GET /v2/workspaces/{workspace_id}/spark-jobs/{job_id}
```

Example Responses

Status code: 200


```
{
  "job_id" : "80ceaaff-3cfc-4162-a56f-70031ea4fa91",
  "client_token" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx",
  "name" : "spark-jar-job-example",
  "endpoint_name" : "my-spark-endpoint",
  "catalog_name" : "my_catalog",
  "state" : "SUCCEED",
  "job_agency" : "my_agency",
  "job_config" : {
    "type" : "SPARK_JAR_JOB",
    "main_class" : "com.example.SparkJobDriver",
    "main_jar" : "obs://my-bucket/jars/spark-job-1.0.jar",
    "main_args" : [ "--input", "obs://my-bucket/input", "--output", "obs://my-bucket/output" ],
    "dependency_jars" : [ "obs://my-bucket/jars/utils-1.0.jar" ]
  },
  "resource_config" : {
    "executor_number" : 2,
    "driver_resource_spec" : {
      "cpu" : 2000,
      "memory" : 4096
    },
    "executor_resource_spec" : {
      "cpu" : 4000,
      "memory" : 8192,
      "disk" : 20
    }
  },
  "image" : {
    "image_id" : "90a827a1-ca72-4be8-943b-774f945f22ac",
    "image_version_id" : "7a8b9c0d-1e2f-4a5b-8c9d-7e8f9a0b1c2d"
  },
  "restore_strategy" : {
    "max_retry" : 3,
    "retry_delay" : 30,
    "queued_timeout" : 180,
    "running_timeout" : 720
  },
  "retry_times" : 1,
  "labels" : [ {
    "key" : "env",
    "value" : "production"
  }, {
    "key" : "team",
    "value" : "data-team"
  } ],
  "logging_config" : {
    "driver_root_logger_level" : "INFO",
    "executor_root_logger_level" : "INFO"
  },
  "description" : "Spark job example.",
  "create_time" : 1764061598000,
  "start_time" : 1764061648000,
  "end_time" : 1764061898000,
  "create_user" : {
    "user_id" : "user123",
    "user_name" : "admin"
  },
  "log_url" : "obs://my-bucket/aidatalake/workspace_52edbbd3e5f6470a9c1b8d2e3f4a5b6c/spark/
```


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endpoint_b242c8569d1e4f7a8c3b5d6e2f0a4c71/jobs/logs/2025_11_25/80ceaaff-3cfc-4162-a56f-70031ea4fa91/1/spark_ai-datalake-spark-80ceaaff-driver_spark-job-b242c856/spark.log",
  "state_message" : ""
}

Status code: 400

{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter job_id",
  "solution_msg" : "Please check the input parameters according to the documentation(job_id for spark job)."
}

Status code: 401

{
  "error_code" : "AIDataLake.01011003",
  "error_msg" : "auth token not exists in header",
  "solution_msg" : "Please check if auth token is included in the request header."
}

Status code: 403

{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}

Status code: 500

{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
  "solution_msg" : "Contact operations for analysis."
}

Status Codes

Status Code	Description
200	Spark job details are successfully viewed.
400	Invalid request parameter.
401	Authentication failed.
403	Insufficient permissions.
500	Internal server error.

7.1.5 Canceling Spark Job Execution

Function

This API is used to cancel a running or queued Spark job. It is synchronous. Only jobs in the **QUEUED** or **RUNNING** state can be canceled. After a successful call, the cancellation result is returned directly.

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Calling Method

For details, see **Calling APIs**.

URI

POST /v2/workspaces/{workspace_id}/spark-jobs/{job_id}/cancel

Table 7-58 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. This can be viewed on the workspace page of the console. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
job_id	Yes	String	**Definition**: Spark job ID, used to uniquely identify a job. It can be obtained from the **job_id** in the response of the API for starting a Spark job or from the API for listing Spark jobs. **Constraints**: N/A **Range**: 1 to 64 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed. **Default Value**: N/A

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Request Parameters

Table 7-59 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: The value can contain a maximum of 65,534 characters, with no character type restrictions. **Default Value**: N/A

Response Parameters

Status code: 204

None

Status code: 400

Table 7-60 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 401

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Table 7-61 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 403

Table 7-62 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 500

Table 7-63 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

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Example Requests

Cancel a specified Spark job by specifying the **job_id**.

```
POST /v2/workspaces/{workspace_id}/spark-jobs/{job_id}/cancel
```

Example Responses

Status code: 204

None

Status code: 400

```
{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter job_id",
  "solution_msg" : "Please check the input parameters according to the documentation(job_id for spark job)."
}
```

Status code: 401

```
{
  "error_code" : "AIDataLake.01011003",
  "error_msg" : "auth token not exists in header",
  "solution_msg" : "Please check if auth token is included in the request header."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
  "solution_msg" : "Contact operations for analysis."
}
```

Status Codes

Status Code	Description
204	The job is canceled. No response parameters are returned.
400	Invalid request parameter.
401	Authentication failed.
403	Insufficient permissions.
500	Internal server error.

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7.2 SparkSql Job Management

7.2.1 Querying the Status of a SparkSql Job

Function

This API is used to query the status of a Sparksql job. It is synchronous. You can obtain the **statement_id** through the SparkSql job list query API. After a successful call, the current status of the job is returned directly.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/spark-sqls/{statement_id}/state

Table 7-64 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. This can be viewed on the workspace page of the console. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
statement_id	Yes	String	**Definition**: Spark SQL job ID, used to uniquely identify a SparkSql job execution. It can be obtained from the **statement_id** in the response of the API for executing a Spark SQL job or from the API for listing Spark SQL jobs. **Constraints**: N/A **Range**: 1 to 64 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed. **Default Value**: N/A

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Request Parameters

Table 7-65 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: The value can contain a maximum of 65,534 characters, with no character type restrictions. **Default Value**: N/A

Response Parameters

Status code: 200

Table 7-66 Response body parameters

Parameter	Type	Description
statement_id	String	**Definition**: Spark SQL job ID, used to uniquely identify a Spark SQL job execution. **Range**: 1 to 64 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed. Example: **6c98db52-cac2-4ff1-9a91-b7793e95557d**.
state	String	**Definition**: Execution status of the SparkSql job. **Range** • **QUEUED**: Queued. • **RUNNING**: Running. • **CANCELING**: Canceling. • **CANCELED**: Canceled. • **FAILED**: Failed. • **QUEUED_TIMEOUT**: Queue timeout. • **RUNNING_TIMEOUT**: Running timeout. • **SUCCEED**: Succeeded.

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Status code: 400

Table 7-67 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 401

Table 7-68 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 403

Table 7-69 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.

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Parameter	Type	Description
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 500

Table 7-70 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Example Requests

Query the current execution status of a specified SparkSql job, used for monitoring the job progress and determining whether to cancel or continue waiting.

```
GET /v2/workspaces/{workspace_id}/spark-sqls/{statement_id}/state
```

Example Responses

Status code: 200

```
{
  "statement_id" : "6c98db52-cac2-4ff1-9a91-b7793e95557d",
  "state" : "RUNNING"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter statement_id",
  "solution_msg" : "Please check the input parameters according to the documentation(statement_id for spark sql)."
}
```

Status code: 401

```
{
  "error_code" : "AIDataLake.01011003",
  "error_msg" : "auth token not exists in header",
  "solution_msg" : "Please check if auth token is included in the request header."
}
```

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Status code: 403

```
{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
  "solution_msg" : "Contact operations for analysis."
}
```

Status Codes

Status Code	Description
200	SparkSql job status successfully queried.
400	Invalid request parameter.
401	Authentication failed.
403	Insufficient permissions.
500	Internal server error.

7.2.2 Listing SparkSql Jobs

Function

This API is used to query the Spark SQL job list in a workspace. This API is a synchronous API. It supports filtering by job status, creation time, SQL fragment, etc. After a successful call, the job list data is returned directly. You can view job details via the API for **viewing Spark SQL job details**.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/spark-sqls

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Table 7-71 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. This can be viewed on the workspace page of the console. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Table 7-72 Query Parameters

Parameter	Mandatory	Type	Description
marker	No	String	**Definition**: Job ID cursor position, used for pagination. **Constraints**: For the first query, this parameter can be omitted. For subsequent queries, pass the **next_marker** value returned in the previous response. **Range**: Fixed at 36 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed. **Default Value**: N/A
limit	No	Integer	**Definition**: Number of records to query, used to specify the number of jobs returned. **Constraints**: N/A **Range**: 1 to 100. **Default Value**: **10**.

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Parameter	Mandatory	Type	Description
page_reverse	No	Boolean	**Definition**: Whether to query in reverse page order, which specifies the pagination direction. **Constraints**: When set to **true**, the **marker** parameter must be specified. **Range** • **true**: Queries the previous page of data. • **false**: Queries the next page of data. **Default Value**: **false**
endpoint_name	No	String	**Definition**: Endpoint name, used to specify the SparkSql execution environment for the query. **Constraints**: N/A **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a lowercase letter and end with a lowercase letter or digit. **Default Value**: N/A
statement	No	String	**Definition**: SQL fragment, used for fuzzy search of jobs containing the specified SQL fragment. **Constraints**: N/A **Range**: 1 to 128 characters. **Default Value**: N/A
create_time_after	No	Long	**Definition**: Used to query jobs created after this timestamp. **Constraints**: N/A **Range**: Minimum value: **1764061598000**. Unix timestamp in milliseconds. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
create_time_before	No	Long	**Definition**: Used to query jobs created before this timestamp. **Constraints**: N/A **Range**: Minimum value: **1764061598000**. Unix timestamp in milliseconds. **Default Value**: N/A
states	No	Array of strings	**Definition**: List of SparkSql job statuses, used to filter jobs by status. The array elements are of the String type. The meanings of the values are as follows: • **QUEUED**: Queued. • **RUNNING**: Running. • **CANCELING**: Canceling. • **CANCELED**: Canceled. • **FAILED**: Failed. • **QUEUED_TIMEOUT**: Queued timeout. • **RUNNING_TIMEOUT**: Running timeout. • **SUCCEED**: Succeeded. **Constraints**: The number of elements in an array cannot exceed 10. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
statement_types	No	Array of strings	**Definition**: List of job types, used to filter jobs by job type. The array elements are of the String type. The meanings of the values are as follows: • **DDL**: Jobs for creating, modifying, or deleting metadata, including DESC/SHOW statements. • **DCL**: Jobs for permission granting and revocation. • **DQL**: Query statements (SELECT). • **DML**: Jobs for appending, deleting, or updating data in tables. **Constraints**: The number of elements in an array cannot exceed 4. **Default Value**: N/A
statement_id	No	String	**Definition**: SparkSql job ID, used to query a specific job. It can be obtained from the **statement_id** in the response of the API for executing a Spark SQL job or from the API for listing Spark SQL jobs. **Constraints**: N/A **Range**: 1 to 64 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed. **Default Value**: N/A
create_user_id	No	String	**Definition**: Job creator ID, used to filter jobs by creator. This can be obtained by calling the API for querying user information or viewed on the user management page of the console. **Constraints**: N/A **Range**: 1 to 256 characters. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
create_user_name	No	String	**Definition**: Job creator name, used to filter jobs by creator. **Constraints**: N/A **Range**: 1 to 256 characters **Default Value**: N/A
labels	No	String	**Definition**: Job tags, used to filter jobs by tags. Format: **key=value**, where **=** must be URL-encoded as **%3D**. **Constraints**: N/A **Range**: 1 to 1,024 characters **Default Value**: N/A

Request Parameters

Table 7-73 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: The value can contain a maximum of 65,534 characters, with no character type restrictions. **Default Value**: N/A

Response Parameters

Status code: 200

Table 7-74 Response body parameters

Parameter	Type	Description
page_info	**SparkMarkerPageInfo** object	**Definition**: Pagination cursor information, used to identify the position and quantity of paginated queries.

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Parameter	Type	Description
statements	Array of **ListSparkSqlResItem** objects	**Definition**: Detailed SparkSql job list, containing job ID, status, SQL content, and other information.

Table 7-75 SparkMarkerPageInfo

Parameter	Type	Description
next_marker	String	**Definition**: Next page cursor, used to identify the starting position of the next page of data. An empty value indicates no more data. **Range**: Fixed at 36 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed. Example: **6c98db52-cac2-4ff1-9a91-b7793e95557d**.
previous_marker	String	**Definition**: Previous page cursor, which is used to identify the start position of the previous page of data. If this parameter is left blank, the current page is the first page. **Range**: Fixed at 36 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed.
current_count	Integer	**Definition**: Number of data items on the current page, used to identify the amount of data returned in the current response. **Range**: Integer greater than or equal to 0. Maximum value: **100**.

Table 7-76 ListSparkSqlResItem

Parameter	Type	Description
statement_id	String	**Definition**: Spark SQL job ID, used to uniquely identify a Spark SQL job execution. **Range**: 1 to 64 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed. Example: **80ceaaff-3cfc-4162-a56f-70031ea4fa91**.

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Parameter	Type	Description
client_token	String	**Definition**: SparkSql job transaction ID, used to prevent duplicate submissions. **Range**: UUID format, 36 characters. Example: **xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx**.
endpoint_name	String	**Definition**: Endpoint name, used to specify the SparkSql execution environment. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a lowercase letter and end with a lowercase letter or digit.
endpoint_id	String	**Definition**: Endpoint ID, which uniquely identifies the SparkSql execution environment. **Range**: UUID format, 36 characters.
catalog_context	**SparkSqlCatalog-ContextResponse** object	**Definition**: Catalog context information, used to specify the data catalog and database used by the job.
statement	String	**Definition**: User SQL statement, used to perform tasks such as data query and data manipulation. **Range**: The value can contain a maximum of 500,000 characters, with no character type restrictions.
parameters	Array of **SparkSqlParameter** objects	**Definition**: List of placeholder parameters for user SQL content, used to dynamically replace parameters in the SQL.

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Parameter	Type	Description
state	String	**Definition**: SparkSql job status, used to identify the execution status of the job. **Range** • **QUEUED**: Queued. • **RUNNING**: Running. • **CANCELING**: Canceling. • **CANCELED**: Canceled. • **FAILED**: Failed. • **QUEUED_TIMEOUT**: Queue timeout. • **RUNNING_TIMEOUT**: Running timeout. • **SUCCEED**: Succeeded.
statement_type	String	**Definition**: SQL job type, used to identify the type of the job. **Range** • **DDL**: Jobs for creating, modifying, or deleting metadata, including DESC/SHOW statements. • **DCL**: Jobs for permission granting and revocation. • **DQL**: Query statements (SELECT). • **DML**: Jobs for appending, deleting, or updating data in tables.
error	**SparkSqlErrorDto** object	**Definition**: SparkSql job error details, containing error description, error code, and other information.
result	**SparkSqlResultResponse** object	**Definition**: SparkSql job result information, including the format and path of the query results.
metric_statistics	**SparkSqlMetricStatisticsResponse** object	**Definition**: SparkSql job metric statistics, including the amount of data read, data output, and compute resource usage.

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Parameter	Type	Description
log_url	String	**Definition**: Log OBS archive path, used to store job execution logs. **Range**: OBS path format, for example, **obs://bucket/aidatalake/workspace_{workspace_id}/spark/endpoint_{endpoint_id}/jobs/logs/{yyyy_MM_dd}/sql-engine-{engine_id}/spark_{app_name}-driver_spark-sql-{endpoint_id}/spark.log**. The path is automatically generated and does not need to be constructed. {workspace_id} indicates the workspace ID, {endpoint_id} indicates the endpoint ID, {yyyy_MM_dd} indicates the date, {engine_id} indicates the SQL engine ID, and {app_name} indicates the Spark application name.
create_time	Long	**Definition**: Job creation time. The value is a Unix timestamp in milliseconds. **Range**: N/A
start_time	Long	**Definition**: Job start time. The value is a Unix timestamp in milliseconds. **Range**: N/A
end_time	Long	**Definition**: Job end time. The value is a Unix timestamp in milliseconds. **Range**: N/A
create_user	SparkCreateUser object	**Definition**: Information about the user who creates the job.

Table 7-77 SparkSqlCatalogContextResponse

Parameter	Type	Description
catalog_name	String	**Definition**: Catalog name, used to specify the data catalog used by the job. **Range**: The value can contain a maximum of 128 characters, with no character type restrictions.

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Parameter	Type	Description
database_name	String	**Definition**: Default database name, used to specify the database used by the job. **Range**: The value can contain a maximum of 128 characters, with no character type restrictions.

Table 7-78 SparkSqlParameter

Parameter	Type	Description
key	String	**Definition**: Placeholder key, used to identify the parameter position in the SQL statement. Example: **:key** in a SQL statement. **Range**: The value can contain 1 to 128 characters, with no character type restrictions.
value	String	**Definition**: Placeholder value, used to replace the placeholder in the SQL statement. The value must be a string, and the format is determined by value_type. The input formats of **DATE** and **TIMESTAMP** are the same (Unix timestamp in milliseconds), but they are converted to different data types. **Range**: 1 to 512 characters.
value_type	String	**Definition**: Placeholder type, used to identify the data type of the placeholder value. **Range** • **STRING**: String type. • **DECIMAL**: Fixed-point number type. • **INTEGER**: Integer type. • **DATE**: Date type. • **TIMESTAMP**: Timestamp type.

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Table 7-79 SparkSqlErrorDto

Parameter	Type	Description
message	String	**Definition**: SparkSql error description, used to explain the specific cause of the error. **Range**: 1 to 1,024 characters. Example: **Table does not exist**.
sql_state	String	**Definition**: SparkSql error code, used to identify the type of error. **Range**: Standard SQL error code format. Example: **42P01**.
error_class	String	**Definition**: SparkSql error type, used to identify the category of the error. **Range**: 1 to 128 characters. Example: **SCHEMA_ALREADY_EXISTS**.
line	Integer	**Definition**: Error line number, used to locate the error position in the SQL statement. **Range**: Integer greater than 0. Example: **2**.
start_position	Integer	**Definition**: Error start position, used to locate the starting character position of the error in the SQL statement. **Range**: Integer greater than 0. Example: **2**.

Table 7-80 SparkSqlResultResponse

Parameter	Type	Description
result_format	String	**Definition**: Query SQL result format, used to specify the storage format of the results. **Range** • **csv**: CSV format. • **arrow**: Apache Arrow format.

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Parameter	Type	Description
result_path	String	**Definition**: OBS path for query SQL results, used to store the result data of the SQL query. **Range**: OBS path format, for example, **obs://bucket/aidatalake/workspace_{workspace_id}/spark/endpoint_{endpoint_id}/jobs/sql_result/{engine_id}/{yyyy_MM_dd}/{statement_id}/result**. The path is automatically generated and does not need to be constructed. {workspace_id} indicates the workspace ID, {endpoint_id} indicates the endpoint ID, {engine_id} indicates the SQL engine ID, {yyyy_MM_dd} indicates the date, and {statement_id} indicates the job ID.
result_records	Long	**Definition**: Number of rows in the query result, indicating the number of data rows returned by the SQL query. **Range**: Integer greater than or equal to 0.
result_bytes	Long	**Definition**: Number of bytes in the query result, indicating the size of the data returned by the SQL query. **Range**: Integer greater than or equal to 0, in bytes.
execution_profile_path	String	**Definition**: Storage path for the job execution plan, used to store the execution plan information of the job. **Range**: OBS path format, for example, **obs://bucket/aidatalake/workspace_{workspace_id}/spark/endpoint_{endpoint_id}/jobs/sql_profile/{engine_id}/{yyyy_MM_dd}/{statement_id}/profile**. The path is automatically generated and does not need to be constructed. {workspace_id} indicates the workspace ID, {endpoint_id} indicates the endpoint ID, {engine_id} indicates the SQL engine ID, {yyyy_MM_dd} indicates the date, and {statement_id} indicates the job ID.

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Table 7-81 SparkSqlMetricStatisticsResponse

Parameter	Type	Description
bad_records	Long	**Definition**: Number of dirty data rows, used to identify the number of erroneous data rows found during processing. **Range**: Integer greater than or equal to 0.
input_bytes	Long	**Definition**: Number of data bytes read, used to identify the amount of data read by the job. **Range**: Integer greater than or equal to 0, in bytes.
input_records	Long	**Definition**: Number of data rows read, used to identify the number of data records read by the job. **Range**: Integer greater than or equal to 0.
output_bytes	Long	**Definition**: Number of data bytes output, used to identify the amount of data output by the job. **Range**: Integer greater than or equal to 0, in bytes.
output_records	Long	**Definition**: Number of data rows output, used to identify the number of data records output by the job. **Range**: Integer greater than or equal to 0.
cpu_time	Long	**Definition**: CPU seconds used for computation, used to identify the compute resources consumed by the job. **Range**: Integer greater than or equal to 0, in seconds.

Table 7-82 SparkCreateUser

Parameter	Type	Description
user_id	String	**Definition**: User ID of the job creator, used to identify the job creator. **Range**: The value can contain 1 to 256 characters, with no character type restrictions.

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Parameter	Type	Description
user_name	String	**Definition**: User name of the job creator, used to identify the job creator. **Range**: The value can contain 1 to 256 characters, with no character type restrictions.

Status code: 400

Table 7-83 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 401

Table 7-84 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 403

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Table 7-85 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 500

Table 7-86 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Example Requests

Query all SparkSql jobs in the workspace that are in the running or succeeded state, with 2 records per page. Status filter: **RUNNING** or **SUCCEED**.

```
GET /v2/workspaces/{workspace_id}/spark-sqls?limit=2&states=RUNNING&states=SUCCEED
```

Example Responses

Status code: 200

```
{
  "page_info" : {
    "next_marker" : "a1b2c3d4-e5f6-7890-abcd-ef1234567890",
    "current_count" : 2
  },
  "statements" : [ {
    "statement_id" : "6c98db52-cac2-4ff1-9a91-b7793e95557d",
    "client_token" : "019f2601-c9b5-7d94-80f1-b9d3185433fe",
    "endpoint_name" : "spark-endpoint-01",
    "statement_type" : "DQL",
```

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```
    "state" : "RUNNING",
    "catalog_context" : {
      "catalog_name" : "hive_catalog",
      "database_name" : "default"
    },
    "statement" : "SELECT * FROM table_name LIMIT 100",
    "log_url" : "obs://my-bucket/aidatalake/workspace_a1b2c3d4e5f6470a9c1b8d2e3f4a5b6c/spark/
endpoint_9f8e7d6c5b4a39281706f5e4d3c2b1a0/jobs/logs/2026_06_01/sql-engine-6c98db52/spark_ai-
datalake-spark-sql-engine-6c98db52-driver_spark-sql-9f8e7d6c/spark.log",
    "create_time" : 1764061598000,
    "start_time" : 1764061698000,
    "create_user" : {
      "user_id" : "user123",
      "user_name" : "admin"
    }
  }, {
    "statement_id" : "01928d08-b98a-73ce-91df-a7a0dc984207",
    "client_token" : "01928d08-b96b-71fb-95ce-cce0789db8de",
    "endpoint_name" : "spark-sql-01",
    "statement_type" : "DQL",
    "state" : "RUNNING",
    "catalog_context" : {
      "catalog_name" : "hive_catalog",
      "database_name" : "db01"
    },
    "statement" : "select * from inventory limit 10",
    "log_url" : "obs://my-bucket/aidatalake/workspace_a1b2c3d4e5f6470a9c1b8d2e3f4a5b6c/spark/
endpoint_9f8e7d6c5b4a39281706f5e4d3c2b1a0/jobs/logs/2026_06_01/sql-engine-01928d08/spark_ai-
datalake-spark-sql-engine-01928d08-driver_spark-sql-9f8e7d6c/spark.log",
    "create_time" : 1782898538890,
    "start_time" : 1782898615461,
    "create_user" : {
      "user_id" : "user456",
      "user_name" : "admin"
    }
  } ]
}
```


Status code: 400


```
{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter statement",
  "solution_msg" : "Please check the input parameters according to the documentation(statement for spark
sql)."
}
```


Status code: 401


```
{
  "error_code" : "AIDataLake.01011003",
  "error_msg" : "auth token not exists in header",
  "solution_msg" : "Please check if auth token is included in the request header."
}
```


Status code: 403


```
{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}
```


Status code: 500


```
{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
  "solution_msg" : "Contact operations for analysis."
}
```


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Status Codes

Status Code	Description
200	SparkSql jobs successfully listed.
400	Invalid request parameter.
401	Authentication failed.
403	Insufficient permissions.
500	Internal server error.

7.2.3 Viewing SparkSql Job Details

Function

This API is used to view the detailed information of a SparkSql job. It is synchronous. It returns job status, SQL content, execution parameters, etc. After a successful call, the job details are returned directly. You can create a job by calling the API for **running a Spark SQL job** and query the job list by calling the API for **listing Spark SQL jobs**.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/spark-sqls/{statement_id}

Table 7-87 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. This can be viewed on the workspace page of the console. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
statement_id	Yes	String	**Definition**: Spark SQL job ID, used to uniquely identify a SparkSql job execution. It can be obtained from the **statement_id** in the response of the API for executing a Spark SQL job or from the API for listing Spark SQL jobs. **Constraints**: N/A **Range**: 1 to 64 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed. **Default Value**: N/A

Request Parameters

Table 7-88 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: The value can contain a maximum of 65,534 characters, with no character type restrictions. **Default Value**: N/A

Response Parameters

Status code: 200

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Table 7-89 Response body parameters

Parameter	Type	Description
endpoint_name	String	**Definition**: Endpoint name, used to specify the SparkSql execution environment. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a lowercase letter and end with a lowercase letter or digit.
endpoint_id	String	**Definition**: Endpoint ID, which uniquely identifies the SparkSql execution environment. **Range**: UUID format, 36 characters.
client_token	String	**Definition**: SparkSql job transaction ID, used to prevent duplicate submissions. **Range**: UUID format, 36 characters. Example: **xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx**.
catalog_context	**SparkSqlCatalog-ContextResponse** object	**Definition**: Catalog context information, used to specify the data catalog and database used by the job.
statement	String	**Definition**: User SQL statement, used to perform tasks such as data query and data manipulation. **Range**: Up to 500,000 characters.
parameters	Array of **SparkSqlParameter** objects	**Definition**: List of placeholder parameters for user SQL content, used to dynamically replace parameters in the SQL. Each element in the array is a SparkSqlParameter object, which contains the key and value of a placeholder.

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Parameter	Type	Description
statement_type	String	**Definition**: SQL job type, used to identify the type of the job. **Range** • **DDL**: Jobs for creating, modifying, or deleting metadata, including DESC/SHOW statements. • **DCL**: Jobs for permission granting and revocation. • **DQL**: Query statements (SELECT). • **DML**: Jobs for appending, deleting, or updating data in tables.
statement_id	String	**Definition**: Spark SQL job ID, used to uniquely identify a Spark SQL job execution. **Range**: 1 to 64 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed. Example: **80ceaaff-3cfc-4162-a56f-70031ea4fa91**.
state	String	**Definition**: SparkSql job status, used to identify the execution status of the job. **Range** • **QUEUED**: Queued. • **RUNNING**: Running. • **CANCELING**: Canceling. • **CANCELED**: Canceled. • **FAILED**: Failed. • **QUEUED_TIMEOUT**: Queue timeout. • **RUNNING_TIMEOUT**: Running timeout. • **SUCCEED**: Succeeded.
error	**SparkSqlErrorDto** object	**Definition**: SparkSql job error details, containing error description, error code, and other information.

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Parameter	Type	Description
spark_config	Map<String,String>	**Definition**: User-defined Spark parameter configuration, used to configure Spark parameters during job execution. The key in the map is the Spark configuration item name (for example, **spark.executor.memory**), and the value is the corresponding configuration value. Both key and value are strings.
image	**ShowSparkSqlImageConfigResponse** object	**Definition**: Image configuration information, including image ID and version information.
result	**SparkSqlResultResponse** object	**Definition**: SparkSql job result information, including the format and path of the query results.
metric_statistics	**SparkSqlMetricStatisticsResponse** object	**Definition**: SparkSql job metric statistics, including the amount of data read, data output, and compute resource usage.
timeout	**SparkSqlTimeout** object	**Definition**: SparkSql job timeout configuration information, including queue timeout and running timeout durations.
log_url	String	**Definition**: Log OBS archive path, used to store job execution log information. **Range**: OBS path format, for example, **obs://bucket/aidatalake/workspace_{workspace_id}/spark/endpoint_{endpoint_id}/jobs/logs/{yyyy_MM_dd}/sql-engine-{engine_id}/spark_{app_name}-driver_spark-sql-{endpoint_id}/spark.log**. The path is automatically generated and does not need to be constructed. {workspace_id} indicates the workspace ID, {endpoint_id} indicates the endpoint ID, {yyyy_MM_dd} indicates the date, {engine_id} indicates the SQL engine ID, and {app_name} indicates the Spark application name.
create_time	Long	**Definition**: Job creation time, used to identify the creation timestamp of the job. **Range**: Integer greater than or equal to 0, in milliseconds.

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Parameter	Type	Description
start_time	Long	**Definition**: Job start time, used to identify the timestamp when the job started execution. **Range**: Integer greater than or equal to 0, in milliseconds.
end_time	Long	**Definition**: Job end time, used to identify the timestamp when the job completed execution. **Range**: Integer greater than or equal to 0, in milliseconds.
create_user	**SparkCreateUser** object	**Definition**: Information about the user who creates the job.
labels	Array of **SparkSqlLabelRes** objects	**Definition**: Job tag list, used to identify and categorize jobs. Each element in the array is a SparkSqlLabelRes object, which contains the key and value of a tag.

Table 7-90 SparkSqlCatalogContextResponse

Parameter	Type	Description
catalog_name	String	**Definition**: Catalog name, used to specify the data catalog used by the job. **Range**: The value can contain a maximum of 128 characters, with no character type restrictions.
database_name	String	**Definition**: Default database name, used to specify the database used by the job. **Range**: The value can contain a maximum of 128 characters, with no character type restrictions.

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Table 7-91 SparkSqlParameter

Parameter	Type	Description
key	String	**Definition**: Placeholder key, used to identify the parameter position in the SQL statement. Example: **:key** in a SQL statement. **Range**: The value can contain 1 to 128 characters, with no character type restrictions.
value	String	**Definition**: Placeholder value, used to replace the placeholder in the SQL statement. The value must be a string, and the format is determined by value_type. The input formats of **DATE** and **TIMESTAMP** are the same (Unix timestamp in milliseconds), but they are converted to different data types. **Range**: 1 to 512 characters.
value_type	String	**Definition**: Placeholder type, used to identify the data type of the placeholder value. **Range** ● **STRING**: String type. ● **DECIMAL**: Fixed-point number type. ● **INTEGER**: Integer type. ● **DATE**: Date type. ● **TIMESTAMP**: Timestamp type.

Table 7-92 SparkSqlErrorDto

Parameter	Type	Description
message	String	**Definition**: SparkSql error description, used to explain the specific cause of the error. **Range**: 1 to 1,024 characters. Example: **Table does not exist**.
sql_state	String	**Definition**: SparkSql error code, used to identify the type of error. **Range**: Standard SQL error code format. Example: **42P01**.

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Parameter	Type	Description
error_class	String	**Definition**: SparkSql error type, used to identify the category of the error. **Range**: 1 to 128 characters. Example: **SCHEMA_ALREADY_EXISTS**.
line	Integer	**Definition**: Error line number, used to locate the error position in the SQL statement. **Range**: Integer greater than 0. Example: **2**.
start_position	Integer	**Definition**: Error start position, used to locate the starting character position of the error in the SQL statement. **Range**: Integer greater than 0. Example: **2**.

Table 7-93 ShowSparkSqlImageConfigResponse

Parameter	Type	Description
release_version	String	**Definition**: Version information of the Spark SQL cluster (AIDataLake.xxx(Spark x.xx.x, JRE x.xx.x)). **Range**: 1 to 512 characters.
image_version_type	String	**Definition**: Image version type used by the SparkSql cluster. **Range** • **STABLE**: Stable. • **RECOMMEND**: Recommended. • **BETA**: Beta.

Table 7-94 SparkSqlResultResponse

Parameter	Type	Description
result_format	String	**Definition**: Query SQL result format, used to specify the storage format of the results. **Range** • **csv**: CSV format. • **arrow**: Apache Arrow format.

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Parameter	Type	Description
result_path	String	**Definition**: OBS path for query SQL results, used to store the result data of the SQL query. **Range**: OBS path format, for example, **obs://bucket/aidatalake/workspace_{workspace_id}/spark/endpoint_{endpoint_id}/jobs/sql_result/{engine_id}/{yyyy_MM_dd}/{statement_id}/result**. The path is automatically generated and does not need to be constructed. {workspace_id} indicates the workspace ID, {endpoint_id} indicates the endpoint ID, {engine_id} indicates the SQL engine ID, {yyyy_MM_dd} indicates the date, and {statement_id} indicates the job ID.
result_records	Long	**Definition**: Number of rows in the query result, indicating the number of data rows returned by the SQL query. **Range**: Integer greater than or equal to 0.
result_bytes	Long	**Definition**: Number of bytes in the query result, indicating the size of the data returned by the SQL query. **Range**: Integer greater than or equal to 0, in bytes.
execution_profile_path	String	**Definition**: Storage path for the job execution plan, used to store the execution plan information of the job. **Range**: OBS path format, for example, **obs://bucket/aidatalake/workspace_{workspace_id}/spark/endpoint_{endpoint_id}/jobs/sql_profile/{engine_id}/{yyyy_MM_dd}/{statement_id}/profile**. The path is automatically generated and does not need to be constructed. {workspace_id} indicates the workspace ID, {endpoint_id} indicates the endpoint ID, {engine_id} indicates the SQL engine ID, {yyyy_MM_dd} indicates the date, and {statement_id} indicates the job ID.

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Table 7-95 SparkSqlMetricStatisticsResponse

Parameter	Type	Description
bad_records	Long	**Definition**: Number of dirty data rows, used to identify the number of erroneous data rows found during processing. **Range**: Integer greater than or equal to 0.
input_bytes	Long	**Definition**: Number of data bytes read, used to identify the amount of data read by the job. **Range**: Integer greater than or equal to 0, in bytes.
input_records	Long	**Definition**: Number of data rows read, used to identify the number of data records read by the job. **Range**: Integer greater than or equal to 0.
output_bytes	Long	**Definition**: Number of data bytes output, used to identify the amount of data output by the job. **Range**: Integer greater than or equal to 0, in bytes.
output_records	Long	**Definition**: Number of data rows output, used to identify the number of data records output by the job. **Range**: Integer greater than or equal to 0.
cpu_time	Long	**Definition**: CPU seconds used for computation, used to identify the compute resources consumed by the job. **Range**: Integer greater than or equal to 0, in seconds.

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Table 7-96 SparkSqlTimeout

Parameter	Type	Description
queued_timeout	Integer	**Definition**: Job queue timeout duration, in minutes. If the job has not started running after this time, the job will be marked as queue timeout and fail. **Range**: 10 to 180 minutes.
running_timeout	Integer	**Definition**: Job running timeout duration, in minutes. If the job has not completed after this time, the job will be canceled and marked as running timeout. **Range**: 10 to 720 minutes.

Table 7-97 SparkCreateUser

Parameter	Type	Description
user_id	String	**Definition**: User ID of the job creator, used to identify the job creator. **Range**: The value can contain 1 to 256 characters, with no character type restrictions.
user_name	String	**Definition**: User name of the job creator, used to identify the job creator. **Range**: The value can contain 1 to 256 characters, with no character type restrictions.

Table 7-98 SparkSqlLabelRes

Parameter	Type	Description
key	String	**Definition**: Tag key, used to identify the type or category of the tag. **Range**: 1 to 128 characters.
value	String	**Definition**: Tag value, used to identify the specific content or attribute of the tag. **Range**: 1 to 512 characters.

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Status code: 400

Table 7-99 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 401

Table 7-100 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 403

Table 7-101 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.

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Parameter	Type	Description
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 500

Table 7-102 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Example Requests

View the complete detailed information of a specified SparkSql job, including SQL content, execution parameters, and status.

```
GET /v2/workspaces/{workspace_id}/spark-sqls/{statement_id}
```

Example Responses

Status code: 200

```
{
  "statement_id" : "6c98db52-cac2-4ff1-9a91-b7793e95557d",
  "client_token" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx",
  "endpoint_name" : "spark-endpoint-01",
  "catalog_context" : {
    "catalog_name" : "hive_catalog",
    "database_name" : "default"
  },
  "statement" : "SELECT * FROM table_name WHERE id = :id_param LIMIT 100",
  "parameters" : [ {
    "key" : "id_param",
    "value" : "12345",
    "value_type" : "INTEGER"
  } ],
  "state" : "SUCCEED",
  "statement_type" : "DQL",
  "spark_config" : {
    "spark.executor.memory" : "4g",
    "spark.executor.cores" : "2"
  },
  "result" : {
    "result_format" : "csv",
```

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```
    "result_path" : "obs://my-bucket/aidatalake/workspace_a1b2c3d4e5f6470a9c1b8d2e3f4a5b6c/spark/
endpoint_9f8e7d6c5b4a39281706f5e4d3c2b1a0/jobs/sql_result/
019e19fb78887b57b2f6c4174cd5a002/2026_06_01/6c98db52-cac2-4ff1-9a91-b7793e95557d/result",
    "execution_profile_path" : "obs://my-bucket/aidatalake/workspace_a1b2c3d4e5f6470a9c1b8d2e3f4a5b6c/
spark/endpoint_9f8e7d6c5b4a39281706f5e4d3c2b1a0/jobs/sql_profile/
019e19fb78887b57b2f6c4174cd5a002/2026_06_01/6c98db52-cac2-4ff1-9a91-b7793e95557d/profile"
  },
  "metric_statistics" : {
    "bad_records" : 0,
    "input_bytes" : 1048576,
    "input_records" : 1000,
    "output_bytes" : 524288,
    "output_records" : 500,
    "cpu_time" : 3000
  },
  "timeout" : {
    "queued_timeout" : 180,
    "running_timeout" : 720
  },
  "log_url" : "obs://my-bucket/aidatalake/workspace_a1b2c3d4e5f6470a9c1b8d2e3f4a5b6c/spark/
endpoint_9f8e7d6c5b4a39281706f5e4d3c2b1a0/jobs/logs/2026_04_27/sql-engine-6c98db52/spark_ai-
datalake-spark-sql-engine-6c98db52-driver_spark-sql-9f8e7d6c/spark.log",
  "create_time" : 1698776400000,
  "start_time" : 1698776450000,
  "end_time" : 1698776700000,
  "create_user" : {
    "user_id" : "user123",
    "user_name" : "admin"
  },
  "labels" : [ {
    "key" : "env",
    "value" : "production"
  } ]
}
```


Status code: 400


```
{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter statement_id",
  "solution_msg" : "Please check the input parameters according to the documentation(statement_id for
spark sql)."
}
```


Status code: 401


```
{
  "error_code" : "AIDataLake.01011003",
  "error_msg" : "auth token not exists in header",
  "solution_msg" : "Please check if auth token is included in the request header."
}
```


Status code: 403


```
{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}
```


Status code: 500


```
{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
  "solution_msg" : "Contact operations for analysis."
}
```


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Status Codes

Status Code	Description
200	SparkSql job details are successfully viewed.
400	Invalid request parameter.
401	Authentication failed.
403	Insufficient permissions.
500	Internal server error.

7.2.4 Canceling the Execution of a SparkSql Job

Function

This API is used to cancel a running or queued SparkSql job. It is synchronous. Only jobs in the **QUEUED** or **RUNNING** state can be canceled. After a successful call, the cancellation result is returned directly.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/workspaces/{workspace_id}/spark-sqls/{statement_id}/cancel

Table 7-103 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. This can be viewed on the workspace page of the console. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
statement_id	Yes	String	**Definition**: Spark SQL job ID, used to uniquely identify a SparkSql job execution. It can be obtained from the **statement_id** in the response of the API for executing a Spark SQL job or from the API for listing Spark SQL jobs. **Constraints**: N/A **Range**: 1 to 64 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed. **Default Value**: N/A

Request Parameters

Table 7-104 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: The value can contain a maximum of 65,534 characters, with no character type restrictions. **Default Value**: N/A

Response Parameters

Status code: 204

None

Status code: 400

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Table 7-105 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 401

Table 7-106 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 403

Table 7-107 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

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Status code: 500

Table 7-108 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Example Requests

Cancel a specified Spark SQL job by specifying the **statement_id**.

```
POST /v2/workspaces/{workspace_id}/spark-sqls/{statement_id}/cancel
```

Example Responses

Status code: 204

None

Status code: 400

```
{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter statement_id",
  "solution_msg" : "Please check the input parameters according to the documentation(statement_id for spark sql)."
}
```

Status code: 401

```
{
  "error_code" : "AIDataLake.01011003",
  "error_msg" : "auth token not exists in header",
  "solution_msg" : "Please check if auth token is included in the request header."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
```

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```
  "solution_msg" : "Contact operations for analysis."
}
```

Status Codes

Status Code	Description
204	The SparkSql job is canceled. No response parameters are returned.
400	Invalid request parameter.
401	Authentication failed.
403	Insufficient permissions.
500	Internal server error.

7.2.5 Executing a SparkSql Job

Function

This API is used to execute a Spark SQL job. It is an asynchronous API. After the API is successfully called, the job ID (**statement_id**) is returned. You can query the job execution result through the API for **querying the status of a Spark SQL job**.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/workspaces/{workspace_id}/spark-sqls

Table 7-109 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. This can be viewed on the workspace page of the console. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Request Parameters

Table 7-110 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: The value can contain a maximum of 65,534 characters, with no character type restrictions. **Default Value**: N/A
X-Client-Token	No	String	**Definition**: Service transaction ID, used for link tracking and preventing duplicate submissions. **Constraints**: N/A **Range**: UUID format, 36 characters. **Default Value**: N/A

Table 7-111 Request body parameters

Parameter	Mandatory	Type	Description
endpoint_name	Yes	String	**Definition**: Endpoint name, used to specify the compute engine for running the SparkSql job. This can be viewed on the endpoint management page of the console or obtained by calling the API for listing endpoints. **Constraints**: N/A **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. The value must start with a lowercase letter and must end with a lowercase letter or digit. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
catalog_context	Yes	SparkSqlCatalogContext object	**Definition**: Catalog context information, used to specify the data catalog and database used by the job. **Constraints**: N/A
statement	Yes	String	**Definition**: User SQL statement, used to execute the SparkSql job. Multiple SQL types are supported, including DDL, DCL, DQL, and DML. **Constraints**: N/A **Range**: The value can contain a maximum of 500,000 characters, with no character type restrictions. **Default Value**: N/A
parameters	No	Array of SparkSqlParameter objects	**Definition**: List of placeholder parameters in the user SQL statement, used for parameterized SQL execution. Each element in the array is a SparkSqlParameter object, which contains the key, value, and type information of the placeholder. **Constraints**: The number of placeholder parameters cannot exceed 16.
spark_config	No	Map<String,String>	**Definition**: User-defined Spark parameter configuration, used to optimize job performance. The format is key/value pairs, where Key is the parameter name and Value is the parameter value. Example: **spark.executor.memory=4g**. **Constraints**: The number of parameter configuration items cannot exceed 100, and the length of each parameter value cannot exceed 1,024 characters.

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Parameter	Mandatory	Type	Description
timeout	No	SparkSqlTimeout object	**Definition**: Job timeout configuration, used to set the timeout duration for job queuing and execution. **Constraints**: N/A
labels	No	Array of SparkSqlLabel objects	**Definition**: Job tag list, used to identify and categorize jobs. Each element in the array is a SparkSqlLabel object, which contains the key and value of a tag. **Constraints**: The number of tags cannot exceed 16.

Table 7-112 SparkSqlCatalogContext

Parameter	Mandatory	Type	Description
catalog_name	Yes	String	**Definition**: Catalog name, used to specify the data catalog used by the job. This can be viewed on the catalog management page of the console or obtained by calling the API for listing catalogs. **Constraints**: N/A **Range**: The value can contain a maximum of 128 characters, with no character type restrictions. **Default Value**: N/A
database_name	No	String	**Definition**: Default database name, used to specify the default database for the job. If not specified, the default database of the catalog is used. **Constraints**: N/A **Range**: The value can contain a maximum of 128 characters, with no character type restrictions. **Default Value**: N/A

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Table 7-113 SparkSqlParameter

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: Placeholder key, used to identify the parameter position in the SQL statement. Example: **:key** in a SQL statement. **Constraints**: N/A **Range**: The value can contain 1 to 128 characters, with no character type restrictions. **Default Value**: N/A
value	Yes	String	**Definition**: Placeholder value, used to replace the placeholder in the SQL statement. The value must be a string, and the format is determined by value_type. The input formats of **DATE** and **TIMESTAMP** are the same (Unix timestamp in milliseconds), but they are converted to different data types. **Constraints**: The value format must match the **value_type** parameter as follows: ● **STRING**: String, for example, **xxx**. ● **DECIMAL**: Fixed-point number, for example, **12.1**. ● **INTEGER**: Integer, for example, **13**. ● **DATE**: Unix timestamp (milliseconds). Example: **1779188276372**, used as the DATE type. ● **TIMESTAMP**: Unix timestamp (milliseconds). Example: **1779188276372**, used as the TIMESTAMP type. **Range**: 1 to 512 characters. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
value_type	No	String	**Definition**: Placeholder type, used to identify the data type of the placeholder value. **Constraints**: N/A **Range** • **STRING**: String type. • **DECIMAL**: Fixed-point number type. • **INTEGER**: Integer type. • **DATE**: Date type. • **TIMESTAMP**: Timestamp type. **Default Value**: **STRING**.

Table 7-114 SparkSqlTimeout

Parameter	Mandatory	Type	Description
queued_timeout	No	Integer	**Definition**: Job queue timeout duration, in minutes. If the job has not started running after this time, the job will be marked as queue timeout and fail. **Constraints**: N/A **Range**: 10 to 180 minutes. **Default Value**: **180**
running_timeout	No	Integer	**Definition**: Job running timeout duration, in minutes. If the job has not completed after this time, the job will be canceled and marked as running timeout. **Constraints**: N/A **Range**: 10 to 720 minutes. **Default Value**: N/A

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Table 7-115 SparkSqlLabel

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: Tag key, used to identify the classification dimension of the job. For example: **env**, **project**, etc. **Constraints**: N/A **Range**: The value can contain 1 to 128 characters, with no character type restrictions. **Default Value**: N/A
value	Yes	String	**Definition**: Tag value, used to identify the specific classification of the job. For example: **production**, **data-analytics**, etc. **Constraints**: N/A **Range**: The value can contain 1 to 512 characters, with no character type restrictions. **Default Value**: N/A

Response Parameters

Status code: 201

Table 7-116 Response body parameters

Parameter	Type	Description
statement_id	String	**Definition**: Job ID, used to uniquely identify this SparkSql job execution. This ID can be used to query the job status and execution results. **Range**: 1 to 64 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed. Example: **6c98db52-cac2-4ff1-9a91-b7793e95557d**.

Status code: 400

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Table 7-117 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 401

Table 7-118 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 403

Table 7-119 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

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Status code: 500

Table 7-120 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Example Requests

- Execute a simple SQL query statement. The endpoint name is **spark-endpoint-01**, the catalog is **hive_catalog**, the database is **default**, the query statement is **SELECT * FROM table_name LIMIT 100**, the queue timeout is 180 minutes, and the running timeout is 720 minutes.

```
POST /v2/workspaces/{workspace_id}/spark-sqls

{
 "endpoint_name" : "spark-endpoint-01",
 "catalog_context" : {
  "catalog_name" : "hive_catalog",
  "database_name" : "default"
 },
 "statement" : "SELECT * FROM table_name LIMIT 100",
 "timeout" : {
  "queued_timeout" : 180,
  "running_timeout" : 720
 }
}
```

- Execute a SQL statement with placeholder parameters. The endpoint name is **spark-endpoint-01**, the catalog is **hive_catalog**, and the database is **default**. The query statement contains the **id_param** and **name_param** parameters. The tags are **env=production** and **project=data-analytics**. The Spark configuration is as follows: executor memory: 4 GB, number of executor cores: 2, queue timeout: 180 minutes, and running timeout: 720 minutes.

```
POST /v2/workspaces/{workspace_id}/spark-sqls

{
 "endpoint_name" : "spark-endpoint-01",
 "catalog_context" : {
  "catalog_name" : "hive_catalog",
  "database_name" : "default"
 },
 "statement" : "SELECT * FROM table_name WHERE id = :id_param AND name = :name_param",
 "parameters" : [ {
  "key" : "id_param",
  "value" : "12345",
  "value_type" : "INTEGER"
 }, {
  "key" : "name_param",
```

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```
    "value" : "test_table",
    "value_type" : "STRING"
  } ],
  "labels" : [ {
    "key" : "env",
    "value" : "production"
  }, {
    "key" : "project",
    "value" : "data-analytics"
  } ],
  "spark_config" : {
    "spark.executor.memory" : "4g",
    "spark.executor.cores" : "2"
  },
  "timeout" : {
    "queued_timeout" : 180,
    "running_timeout" : 720
  }
}
```

- Execute a DDL statement to create a table. The endpoint name is **spark-endpoint-01**, the catalog is **hive_catalog**, the database is **default**, the CREATE TABLE statement is **CREATE TABLE IF NOT EXISTS test_table (id INT, name STRING, age INT) USING PARQUET**, the queuing timeout is 180 minutes, and the running timeout is 720 minutes.

```
POST /v2/workspaces/{workspace_id}/spark-sqls

{
  "endpoint_name" : "spark-endpoint-01",
  "catalog_context" : {
    "catalog_name" : "hive_catalog",
    "database_name" : "default"
  },
  "statement" : "CREATE TABLE IF NOT EXISTS test_table (id INT, name STRING, age INT) USING
PARQUET",
  "timeout" : {
    "queued_timeout" : 180,
    "running_timeout" : 720
  }
}
```

Example Responses

Status code: 201

```
{
  "statement_id" : "6c98db52-cac2-4ff1-9a91-b7793e95557d"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter statement",
  "solution_msg" : "Please check the input parameters according to the documentation(statement for spark
sql)."
}
```

Status code: 401

```
{
  "error_code" : "AIDataLake.01011003",
  "error_msg" : "auth token not exists in header",
  "solution_msg" : "Please check if auth token is included in the request header."
}
```

Status code: 403

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```
{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
  "solution_msg" : "Contact operations for analysis."
}
```

Status Codes

Status Code	Description
201	The operation is successful.
400	Invalid request parameter.
401	Authentication failed.
403	Insufficient permissions.
500	Internal server error.

7.2.6 Previewing SparkSql Job Query Results

Function

This API is used to preview the query results of a SparkSql job. It is synchronous. It is only applicable to successfully executed DQL-type jobs. You can view the data content returned by the job. After a successful call, the query result data is returned directly. You can view job details via the API for **viewing Spark SQL job details**.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/workspaces/{workspace_id}/spark-sqls/{statement_id}/preview

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Table 7-121 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. This can be viewed on the workspace page of the console. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
statement_id	Yes	String	**Definition**: Spark SQL job ID, used to uniquely identify a SparkSql job execution. It can be obtained from the **statement_id** in the response of the API for executing a Spark SQL job or from the API for listing Spark SQL jobs. **Constraints**: N/A **Range**: 1 to 64 characters. Only hexadecimal characters, hyphens (-), and underscores (_) are allowed. **Default Value**: N/A

Request Parameters

Table 7-122 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: The value can contain a maximum of 65,534 characters, with no character type restrictions. **Default Value**: N/A

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Response Parameters

Status code: 200

Table 7-123 Response body parameters

Parameter	Type	Description
result_format	String	**Definition**: Query SQL result format, used to specify the storage format of the results. **Range** • **csv**: CSV format. • **arrow**: Apache Arrow format.
result_path	String	**Definition**: OBS path for query SQL results, used to store the result data of the SQL query. **Range**: OBS path format, for example, **obs://bucket/aidatalake/workspace_{workspace_id}/spark/endpoint_{endpoint_id}/jobs/sql_result/{engine_id}/{yyyy_MM_dd}/{statement_id}/result**. The path is automatically generated and does not need to be constructed. {workspace_id} indicates the workspace ID, {endpoint_id} indicates the endpoint ID, {engine_id} indicates the SQL engine ID, {yyyy_MM_dd} indicates the date, and {statement_id} indicates the job ID.
schema	Array of **SparkSqlSchemaItem** objects	**Definition**: Column structure definition of the result data, containing column names and column type information. Each element in the array is a SparkSqlSchemaItem object.
rows	Array<Array<String>>	**Definition**: Job result set, containing the actual data rows returned by the query. Each row is an array corresponding to the column order defined in the schema.

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Table 7-124 SparkSqlSchemaItem

Parameter	Type	Description
column_name	String	**Definition**: Column name, used to identify the column name in the result data. **Range**: 1 to 128 characters. Example: **col1**.
column_type	String	**Definition**: Column type, used to identify the data type of the column in the result data. **Range**: Spark SQL data type name. Examples: **tinyint**, **smallint**, **int**, **bigint**, **float**, **double**, **decimal**, **string**, **varchar**, **char**, **boolean**, **binary**, **date**, and **timestamp**. Complex types (**array**, **map**, **struct**) are returned as their Spark SQL type strings.

Status code: 400

Table 7-125 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 401

Table 7-126 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 403

Table 7-127 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 500

Table 7-128 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Example Requests

Preview the data content returned by a successfully executed SparkSql job, used for verifying query results, data quality checks, and result display.

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```
POST /v2/workspaces/{workspace_id}/spark-sqls/{statement_id}/preview
```

Example Responses

Status code: 200

```
{
  "result_format" : "csv",
  "result_path" : "obs://my-bucket/aidatalake/workspace_a1b2c3d4e5f6470a9c1b8d2e3f4a5b6c/spark/
endpoint_9f8e7d6c5b4a39281706f5e4d3c2b1a0/jobs/sql_result/
019e19fb78887b57b2f6c4174cd5a002/2026_06_01/01928d08-b98a-73ce-91df-a7a0dc984207/result",
  "schema" : [ {
    "column_name" : "id",
    "column_type" : "int"
  }, {
    "column_name" : "name",
    "column_type" : "string"
  } ],
  "rows" : [ [ "1", "test" ], [ "2", "demo" ] ]
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter statement_id",
  "solution_msg" : "Please check the input parameters according to the documentation(statement_id for
spark sql)."
}
```

Status code: 401

```
{
  "error_code" : "AIDataLake.01011003",
  "error_msg" : "auth token not exists in header",
  "solution_msg" : "Please check if auth token is included in the request header."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
  "solution_msg" : "Contact operations for analysis."
}
```

Status Codes

Status Code	Description
200	SparkSql job query results successfully previewed.
400	Invalid request parameter.
401	Authentication failed.

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Status Code	Description
403	Insufficient permissions.
500	Internal server error.

7.2.7 Restarting a SparkSql Cluster

Function

This API is asynchronous. After a successful call, the operation ID (**operation_id**) is returned. You can query the operation execution result through the query Spark asynchronous operation status API. For details, see **Querying the Status of Asynchronous Spark Operations**.

Constraints

- When the FORCE policy is used, restarting the cluster terminates running jobs. Ensure that data is saved in advance.
- Different **restart_strategy** values correspond to different restart behaviors. Choose carefully.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/workspaces/{workspace_id}/endpoints/{endpoint_name}/spark-sqls/restart-cluster

Table 7-129 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. This can be viewed on the workspace page of the console. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
endpoint_name	Yes	String	**Definition**: Endpoint name, used to identify the access point of the SparkSql cluster. **Constraints**: N/A **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a lowercase letter and end with a lowercase letter or digit. **Default Value**: N/A

Request Parameters

Table 7-130 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: The value can contain a maximum of 65,534 characters, with no character type restrictions. **Default Value**: N/A

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Table 7-131 Request body parameters

Parameter	Mandatory	Type	Description
restart_strategy	Yes	String	**Definition**: Cluster restart policy, used to specify the restart method. **Constraints**: N/A **Range** • **FORCE**: Force restart without waiting for running jobs to complete. • **GRACEFUL**: Graceful restart, which waits for all running jobs to complete before restarting. **Default Value**: N/A

Response Parameters

Status code: 200

Table 7-132 Response body parameters

Parameter	Type	Description
operation_id	String	**Definition**: Restart operation ID, used to identify this restart operation. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.

Status code: 400

Table 7-133 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

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Status code: 401

Table 7-134 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 403

Table 7-135 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 500

Table 7-136 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.

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Parameter	Type	Description
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Example Requests

Restart the SparkSql cluster.

```
POST /v2/workspaces/{workspace_id}/endpoints/{endpoint_name}/spark-sqls/restart-cluster

{
  "restart_strategy" : "GRACEFUL"
}
```

Example Responses

Status code: 200

```
{
  "operation_id" : "019ed01e-b10e-71da-bd83-523d97796ec2"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter restart_strategy",
  "solution_msg" : "Please check the input parameters according to the documentation(restart_strategy for restart cluster)."
}
```

Status code: 401

```
{
  "error_code" : "AIDataLake.01011003",
  "error_msg" : "auth token not exists in header",
  "solution_msg" : "Please check if auth token is included in the request header."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
  "solution_msg" : "Contact operations for analysis."
}
```

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Status Codes

Status Code	Description
200	Asynchronous restart cluster request succeeded.
400	Invalid request parameter.
401	Authentication failed.
403	Insufficient permissions.
500	Internal server error.

7.3 SparkOperators Operation Management

7.3.1 Querying the Status of a Spark Asynchronous Operation

Function

This API is used to query the execution status of a Spark asynchronous operation and obtain the current status and execution result of an asynchronous operation (such as restarting a cluster). It is synchronous.

Constraints

Poll the status at appropriate intervals as needed.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/workspaces/{workspace_id}/spark-operators/{operation_id}/show-state

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Table 7-137 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. This can be viewed on the workspace page of the console. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
operation_id	Yes	String	**Definition**: Unique ID of an asynchronous operation, which is used to identify an asynchronous operation (such as restarting a cluster). It can be obtained from the response of the API for creating an asynchronous operation (for example, restarting a SparkSql cluster). **Constraints**: N/A **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Request Parameters

Table 7-138 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: The value can contain a maximum of 65,534 characters, with no character type restrictions. **Default Value**: N/A

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Response Parameters

Status code: 200

Table 7-139 Response body parameters

Parameter	Type	Description
status	String	**Definition**: Operation status, used to identify the current execution status of the asynchronous operation. **Range** • **RUNNING** • **FAILED** • **SUCCESS**
operator_info	One of: • **SqlRestartCluster** object	**Definition**: Detailed operation description.
message	String	**Definition**: Operation description information, containing the operation status description or error information in case of failure. **Range**: 0 to 1,024 characters.
create_time	Long	**Definition**: Operation creation time, used to record when the operation was submitted. **Range**: 0 to 9223372036854775807. Unix timestamp in milliseconds.
end_time	Long	**Definition**: Operation end time, which is used to record the time when the operation is complete. **Range**: 0 to 9223372036854775807. Unix timestamp in milliseconds.

Table 7-140 SqlRestartCluster

Parameter	Type	Description
endpoint_name	String	**Definition**: Spark SQL endpoint name. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a lowercase letter and end with a lowercase letter or digit.

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Parameter	Type	Description
restart_strategy	String	**Definition**: Cluster restart policy, used to specify the restart method. **Range** • **FORCE**: Forcible restart without waiting for running jobs to complete. • **GRACEFUL**: Graceful restart, which waits for all running jobs to complete before restarting.

Status code: 400

Table 7-141 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 401

Table 7-142 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

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Status code: 403

Table 7-143 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Status code: 500

Table 7-144 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 0 to 64 characters.
error_msg	String	**Definition**: Error description, used to explain the cause of an error. **Range**: 0 to 512 characters.
solution_msg	String	**Definition**: Solution description. **Range**: 0 to 4,096 characters.

Example Requests

Query the execution status of an asynchronous operation by **operation_id**.

```
POST /v2/workspaces/{workspace_id}/spark-operators/{operation_id}/show-state
```

Example Responses

Status code: 200

```
{
  "status" : "SUCCESS",
  "message" : "Operation completed successfully",
  "create_time" : 1781494373844,
  "end_time" : 1781494381804,
  "operator_info" : {
    "type" : "RESTART_CLUSTER",
    "endpoint_name" : "spark-sql-cwk",
```

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```
    "restart_strategy" : "FORCE"
  }
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter operation_id",
  "solution_msg" : "Please check the input parameters according to the documentation(operation_id for show operator state)."
}
```

Status code: 401

```
{
  "error_code" : "AIDataLake.01011003",
  "error_msg" : "auth token not exists in header",
  "solution_msg" : "Please check if auth token is included in the request header."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
  "solution_msg" : "Contact operations for analysis."
}
```

Status Codes

Status Code	Description
200	The query is successful. The current status of the asynchronous operation is returned.
400	Invalid request parameters.
401	Authentication failed.
403	Insufficient permissions.
500	Internal server error.

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8 Flink APIs

8.1 Flink Job Management

8.1.1 Creating a Flink Job

Function

This API is used to create and start a Flink job instance. This API is asynchronous. The response only indicates that the job creation request has been received. The actual running status can be queried by calling the **Querying Flink Job Status** API.

Supported job types:

- **FLINK_SQL_JOB**: Flink SQL job, which defines data processing logic through SQL scripts.
- **FLINK_JAR_JOB**: Flink Jar job, which defines data processing logic through a custom JAR file.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/workspaces/{workspace_id}/flink-jobs

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Table 8-1 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Request Parameters

Table 8-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token, used for API authentication and authorization. It can be obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. **Default Value**: N/A
X-Client-Token	No	String	**Definition**: Client token, used for idempotency check of API calls. **Constraints**: N/A **Range**: 1 to 64 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed. **Default Value**: N/A

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Table 8-3 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Job name, used to identify the Flink job. **Constraints**: N/A **Range**: 1 to 128 characters. Must start and end with a letter or digit. Only letters, digits, underscores (_), and hyphens (-) are allowed. **Default Value**: N/A
endpoint_name	Yes	String	**Definition**: Endpoint name for job execution, used to specify the job execution environment. It can be obtained by calling the **Listing Endpoints** or **Listing All Endpoints** API. **Constraints**: N/A **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a lowercase letter and end with a lowercase letter or digit. **Default Value**: N/A
job_config	Yes	One of: • **FlinkSqlParameter** object • **FlinkJarParameter** object	**Definition**: Job configuration parameters, used to specify the Flink job type and execution parameters. The corresponding parameter structure is automatically selected based on the job type: **FLINK_SQL_JOB** corresponds to **FlinkSqlParameter**, **FLINK_JAR_JOB** corresponds to **FlinkJarParameter**. **Constraints**: N/A

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Parameter	Mandatory	Type	Description
deployment_id	No	String	**Definition**: ID of the deployed job, used to associate and aggregate Flink instances. **Constraints**: N/A **Range**: 1 to 64 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed. **Default Value**: N/A
job_agency	No	String	**Definition**: User-defined agency name, used to authorize the job to access OBS and other external resources. **Constraints**: The agency must already exist under the current account. System-managed agencies cannot be used to submit jobs. **Range**: 1 to 64 characters, with no character type restrictions. **Default Value**: If not specified, the endpoint job agency is used by default.
flink_config	No	Map<String,String>	**Definition**: User-defined Flink configuration parameters, in key-value pairs. Up to 100 parameters are supported, each value is 1 to 1,024 characters. System-reserved parameters such as **execution.checkpointing.dir**, **execution.checkpointing.savepoint-dir**, and **high-availability.storageDir** cannot be configured. These system-reserved parameters are automatically populated by the platform based on the endpoint configuration and returned in query responses, requiring no user configuration. **Constraints**: N/A

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Parameter	Mandatory	Type	Description
autoscaling_policy	No	**AutoscalingPolicy** object	**Definition**: Autoscaling configuration, used to automatically adjust the job parallelism. If not specified, autoscaling is disabled by default. **Constraints**: N/A
image_config	No	**FlinkJobImageConfig** object	**Definition**: Image configuration, used to specify the image information required for running the Flink job. If not specified, the system automatically selects the default image based on the endpoint configuration. **Constraints**: N/A
resource_config	No	**FlinkResourceConfig** object	**Definition**: Resource configuration, configuring the job parallelism and resource specifications of each component. **Constraints**: N/A
execution_mode	No	String	**Definition**: Execution mode, used to specify the Flink job execution mode. **Constraints**: N/A **Range** • **STREAMING**: Streaming mode. • **BATCH**: Batch mode. **Default Value**: **STREAMING**.
restore_strategy	No	**RestoreStrategy** object	**Definition**: Restoration policy configuration, used to specify the state restoration policy for the Flink job. **Constraints**: N/A
logging_config	No	**FlinkLoggingConfig** object	**Definition**: Log configuration. You can set the root log level and custom class log levels. **Constraints**: N/A

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Parameter	Mandatory	Type	Description
labels	No	Array of **FlinkLabel** objects	**Definition**: Tags, used for job classification and filtering. **Constraints**: The number of tags cannot exceed 16.
description	No	String	**Definition**: Description, used to describe the purpose of the job. **Constraints**: N/A **Range**: 1 to 512 characters. **Default Value**: N/A

Table 8-4 FlinkSqlParameter

Parameter	Mandatory	Type	Description
type	No	String	**Definition**: Job type. **Constraints**: Fixed value: **FLINK_SQL_JOB**. **Range**: N/A **Default Value**: **FLINK_SQL_JOB**
sql_script_file	Yes	String	**Definition**: OBS file path of the SQL script, used to specify the script file for the SQL job. **Constraints**: N/A **Range**: OBS URL format, 1 to 512 characters, starting with **obs://**. **Default Value**: N/A
dependency_jars	No	Array of strings	**Definition**: OBS path list of JAR files that the SQL job depends on, used to specify the JAR files required for job execution. Each path is in OBS URL format, 1 to 512 characters, starting with **obs://**. **Constraints**: The number of dependent JAR files cannot exceed 100.

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Table 8-5 FlinkJarParameter

Parameter	Mandatory	Type	Description
type	No	String	**Definition**: Job type. **Constraints**: Fixed value: **FLINK_JAR_JOB**. **Range**: N/A **Default Value**: **FLINK_JAR_JOB**
main_jar	Yes	String	**Definition**: OBS path of the JAR file containing the main class, used to specify the entry JAR file. **Constraints**: N/A **Range**: 1 to 512 characters, starting with **obs://**. **Default Value**: N/A
main_class	No	String	**Definition**: Fully qualified name of the Jar job entry class, used to specify the entry class of the job. Can be omitted if the main class is already specified in the main program package manifest. **Constraints**: N/A **Range**: 1 to 512 characters, with no character type restrictions. **Default Value**: N/A
main_args	No	Array of strings	**Definition**: List of entry class parameters for the JAR job, passed in array order. **Constraints**: The number of parameters cannot exceed 100.
dependency_jars	No	Array of strings	**Definition**: OBS path list of the Jar job dependency JAR files, used to specify the JAR files required for job execution. Each path is in OBS URL format, 1 to 512 characters, starting with **obs://**. **Constraints**: The number of dependent JAR files cannot exceed 100.

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Parameter	Mandatory	Type	Description
dependency_files	No	Array of strings	**Definition**: OBS path list of the Jar job dependency files, used to specify the files required for job execution. Each path is in OBS URL format, 1 to 512 characters, starting with **obs://**. **Constraints**: The number of dependent files cannot exceed 100.

Table 8-6 AutoscalingPolicy

Parameter	Mandatory	Type	Description
enabled	No	Boolean	**Definition**: Whether to enable autoscaling. **Constraints**: N/A **Range** • **true**: Enable autoscaling. • **false**: Disable autoscaling. **Default Value**: **false**
vertex_max_parallelism	No	Integer	**Definition:** Maximum operator parallelism. **Constraints**: N/A **Range**: 1 to 1,000. **Default Value**: **1000**
quota_cpu	No	Integer	**Definition**: CPU quota (unit: millicores). **Constraints**: N/A **Range**: 500 to 40,000,000. **Default Value**: **16000**
quota_memory	No	Long	**Definition**: Memory quota (unit: MB). **Constraints**: N/A **Range**: 2,048 to 81,920,000. **Default Value**: **65536**

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Parameter	Mandatory	Type	Description
custom_config	No	Map<String,String>	**Definition**: User-defined autoscaling configuration parameters in key-value pairs, passed as job.autoscaler.* parameters supported by the Flink Kubernetes Operator. Up to 50 parameters are supported, each value is 1 to 1,024 characters. **Constraints**: Full replacement mode is used. When this field is specified, the current input takes effect. When this field is not specified, the custom autoscaling configuration remains unchanged. Parameter names must start with **job.autoscaler.**. Configuration for structured field keys with the same names (job.autoscaler.enabled, job.autoscaler.vertex.max-parallelism, job.autoscaler.quota.cpu, job.autoscaler.quota.memory) does not take effect.

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Table 8-7 FlinkJobImageConfig

Parameter	Mandatory	Type	Description
image_id	Yes	String	**Definition**: Image ID, used to specify the image required for running the Flink job. The image must already exist in the platform image management system. If a non-existent image is passed, the API returns an error. The image can be obtained through the platform image management feature. **Constraints**: This parameter must be used together with **image_version_id**, and both corresponding image versions must already exist. **Range**: 2 to 64 characters, with no character type restrictions. **Default Value**: N/A
image_version_id	Yes	String	**Definition**: Image version ID, used to specify the image version required for running the Flink job. The image version must already exist in the platform image management system. If a non-existent image version is passed, the API returns an error. The image version can be obtained through the platform image management feature. **Constraints**: This parameter must be used together with **image_id**, and both corresponding image versions must already exist. **Range**: 2 to 64 characters, with no character type restrictions. **Default Value**: N/A

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Table 8-8 FlinkResourceConfig

Parameter	Mandatory	Type	Description
parallelism	No	Integer	**Definition**: Job parallelism, determining the concurrent processing capability of the job. **Constraints**: N/A **Range**: 1 to 1,000. **Default Value**: **1**
jobmanager_resource_spec	No	**FlinkResourceSpec** object	**Definition**: JobManager resource specification, including CPU, memory, disk, etc. **Constraints**: N/A
taskmanager_resource_spec	No	**FlinkResourceSpec** object	**Definition**: TaskManager resource specification, including CPU, memory, disk, etc. **Constraints**: N/A

Table 8-9 FlinkResourceSpec

Parameter	Mandatory	Type	Description
cpu	No	Integer	**Definition**: Number of CPU millicores, in millicores, used to specify the CPU resources of the JobManager or TaskManager. **Constraints**: N/A **Range**: 500 to 48,000. **Default Value**: **1000**.
memory	No	Integer	**Definition**: Memory size, in MB, used to specify the memory resources of the JobManager or TaskManager. **Constraints**: N/A **Range**: 2,048 to 393,216. **Default Value**: **4096**.

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Parameter	Mandatory	Type	Description
disk	No	Integer	**Definition**: Pod ephemeral storage capacity, in GB, used to store temporary files during job execution. Ephemeral storage is not persistent. **Constraints**: N/A **Range**: 30 to 1,024. **Default Value**: **30**.

Table 8-10 RestoreStrategy

Parameter	Mandatory	Type	Description
restore_type	Yes	String	**Definition**: Restoration type, used to specify the job restoration policy. **Constraints**: N/A **Range** • **NONE**: Start without state. • **FROM_SAVEPOINT_ID**: Restore from a specified savepoint snapshot. • **FROM_CHECKPOINT_PATH**: Restore from a specified checkpoint path. • **FROM_SPECIFIED_TIMESTAMP**: Restore from a specified timestamp. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
savepoint_id	No	String	**Definition**: Savepoint ID, used to uniquely identify a snapshot. Mandatory only when **restore_type** is **FROM_SAVEPOINT_ID**. You can obtain it by calling the **Listing Flink Job Savepoints** or **Creating a Flink Job Savepoint** API. **Constraints**: The savepoint ID must already exist. If a non-existent savepoint ID is passed, the API returns a 404 error. **Range**: UUIDv7 format, fixed at 36 characters. Only lowercase letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
checkpoint_path	No	String	**Definition**: Checkpoint storage path, pointing to the parent directory of the **_metadata** file. Mandatory only when **restore_type** is **FROM_CHECKPOINT_PATH**. **Constraints**: N/A **Range**: 1 to 512 characters, must start with **obs://**. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
allow_non_restored_state	No	Boolean	**Definition**: Whether to allow ignoring partial operator state. Mandatory only for JAR jobs with **restore_type** of **FROM_SAVEPOINT_ID** or **FROM_CHECKPOINT_PATH**. **Constraints**: N/A **Range** • **true**: Partial operator states can be ignored. If set to **true**, and the snapshot contains operator states that are no longer used by the current job, these states will be skipped instead of reporting an error. • **false**: Operator states cannot be ignored. **Default Value**: N/A
job_start_time_in_ms	No	Long	**Definition**: Timestamp for the data consumption start point of the source table, used to specify when the job starts consuming data from the source table. This parameter is mandatory only when **restore_type** is set to **FROM_SPECIFIED_TIMESTAMP**, and it is supported only for Kafka source tables. **Constraints**: N/A **Range**: 0 to 4,102,416,000,000, 13-digit millisecond timestamp. **Default Value**: N/A

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Table 8-11 FlinkLoggingConfig

Parameter	Mandatory	Type	Description
root_logger_level	No	String	**Definition**: Root log level configuration, used to control the overall log output level of the job. **Constraints**: N/A **Range** • **TRACE**: Trace. • **DEBUG**: Debug. • **INFO**: Information. • **WARN**: Warning. • **ERROR**: Error. **Default Value**: N/A
log4j_loggers	No	Array of **FlinkLog4jLoggers** objects	**Definition**: Name of the output log class and the corresponding log level configuration, used to set a specific log level for a specified class. **Constraints**: The number of configuration items cannot exceed 20.

Table 8-12 FlinkLog4jLoggers

Parameter	Mandatory	Type	Description
logger_name	Yes	String	**Definition**: Name of the class for which logs are output, used to specify the class that requires log level configuration. **Constraints**: N/A **Range**: 1 to 256 characters, with no character type restrictions. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
logger_level	Yes	String	**Definition**: Output log level, used to control the log output level for the class. **Constraints**: N/A **Range** • **TRACE**: Trace. • **DEBUG**: Debug. • **INFO**: Information. • **WARN**: Warning. • **ERROR**: Error. **Default Value**: N/A

Table 8-13 FlinkLabel

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: Tag key. **Constraints**: N/A **Range**: 1 to 128 characters. The equal sign (=) is not allowed. **Default Value**: N/A
value	Yes	String	**Definition**: Tag value. **Constraints**: N/A **Range**: 1 to 512 characters, with no character type restrictions. **Default Value**: N/A

Response Parameters

Status code: 201

Table 8-14 Response body parameters

Parameter	Type	Description
job_id	String	**Definition**: Flink job ID. **Range**: UUIDv7 format, fixed at 36 characters. Only lowercase letters, digits, and hyphens (-) are allowed.

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Status code: 400

Table 8-15 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 401

Table 8-16 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 403

Table 8-17 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 404

Table 8-18 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 500

Table 8-19 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

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Example Requests

- Create and start a Flink SQL job, specifying the job name, endpoint, SQL script path, resource configuration, etc.

```
POST /v2/workspaces/{workspace_id}/flink-jobs

{
  "name" : "test-flink-job",
  "description" : "Test Flink SQL job.",
  "endpoint_name" : "test-endpoint",
  "job_agency" : "test-agency",
  "execution_mode" : "STREAMING",
  "job_config" : {
    "type" : "FLINK_SQL_JOB",
    "sql_script_file" : "obs://my-flink-bucket/path/to/script.sql",
    "dependency_jars" : [ "obs://my-flink-bucket/path/to/dep1.jar" ]
  },
  "flink_config" : {
    "taskmanager.numberOfTaskSlots" : "1"
  },
  "autoscaling_policy" : {
    "enabled" : true,
    "vertex_max_parallelism" : 1000,
    "quota_cpu" : 4000,
    "quota_memory" : 8192,
    "custom_config" : {
      "job.autoscaler.target.utilization" : "0.6",
      "job.autoscaler.target.catch-up.duration" : "10 min"
    }
  },
  "resource_config" : {
    "parallelism" : 1,
    "jobmanager_resource_spec" : {
      "cpu" : 1000,
      "memory" : 4096
    },
    "taskmanager_resource_spec" : {
      "cpu" : 1000,
      "memory" : 4096
    }
  }
}
```

- Create and start a Flink Jar job, specifying the main JAR file, main class, entry parameters, etc.

```
POST /v2/workspaces/{workspace_id}/flink-jobs

{
  "name" : "test-flink-jar-job",
  "description" : "Test Flink Jar job.",
  "endpoint_name" : "test-endpoint",
  "job_agency" : "test-agency",
  "execution_mode" : "STREAMING",
  "job_config" : {
    "type" : "FLINK_JAR_JOB",
    "main_jar" : "obs://my-flink-bucket/path/jars/WindowJoin.jar",
    "main_class" : "org.apache.flink.streaming.examples.join.WindowJoin",
    "main_args" : [ "--input", "obs://bucket/input/", "--output", "obs://bucket/output/" ],
    "dependency_jars" : [ "obs://my-flink-bucket/path/to/dep1.jar" ],
    "dependency_files" : [ "obs://my-flink-bucket/path/to/config.csv" ]
  },
  "resource_config" : {
    "parallelism" : 1,
    "jobmanager_resource_spec" : {
      "cpu" : 1000,
```

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```
    "memory" : 4096
   },
   "taskmanager_resource_spec" : {
    "cpu" : 1000,
    "memory" : 4096
   }
  }
}
```

Example Responses

Status code: 201

- Create and start a Flink SQL job, specifying the job name, endpoint, SQL script path, resource configuration, etc.

  ```
  {
   "job_id" : "019f609a-e90c-xxxx-xxxx-a4ec9018e7f2"
  }
  ```

- Create and start a Flink Jar job, specifying the main JAR file, main class, entry parameters, etc.

  ```
  {
   "job_id" : "019f609a-e90c-xxxx-xxxx-b4ec9018e7f3"
  }
  ```

Status code: 400

```
{
 "error_code" : "AIDataLake.01011001",
 "error_msg" : "Invalid parameter",
 "solution_msg" : "Please check the input parameters according to the documentation."
}
```

Status code: 401

```
{
 "error_code" : "AIDataLake.01011003",
 "error_msg" : "Auth Token not exists in header",
 "solution_msg" : "Please check if auth Token is included in the request header."
}
```

Status code: 403

```
{
 "error_code" : "AIDataLake.01011005",
 "error_msg" : "Current account has no permission",
 "solution_msg" : "Please connect administrators to add permission."
}
```

Status code: 404

```
{
 "error_code" : "AIDataLake.01051101",
 "error_msg" : "Flink savepoint 019f68a2-5e11-xxxx-xxxx-6e670d65ab03 does not exist",
 "solution_msg" : "Please check if Flink savepoint 019f68a2-5e11-xxxx-xxxx-6e670d65ab03 is entered
correctly or has been deleted"
}
```

Status code: 500

```
{
 "error_code" : "AIDataLake.01010001",
 "error_msg" : "Internal system error",
 "solution_msg" : "Contact operations for analysis."
}
```

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Status Codes

Status Code	Description
201	Request submitted.
400	Invalid request parameters.
401	Authentication failed.
403	Insufficient permissions.
404	The Flink savepoint does not exist.
500	Internal system error.

8.1.2 Canceling the Execution of a Flink Job

Function

This API is used to cancel a Flink job. This API is asynchronous. The response only indicates that the cancel request has been received. The actual stopped status can be queried by calling the **Querying Flink Job Status** API.

Supported stop policies:

- **NONE**: Stops immediately without saving state.
- **STOP_WITH_SAVEPOINT**: Creates a snapshot before stopping.
- **STOP_WITH_DRAIN**: Stops in drain mode, triggers window computations, and then creates a snapshot before stopping.
  - **FORCE_CANCEL**: Forcefully cancels the job. This can only be triggered again when the job is already in the **CANCELLING** state.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/cancel

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Table 8-20 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
job_id	Yes	String	**Definition**: Flink job ID, used to uniquely identify a Flink job. For details, see **Listing Flink Jobs**. **Constraints**: N/A **Range**: UUIDv7 format, fixed at 36 characters. **Default Value**: N/A

Request Parameters

Table 8-21 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token, used for API authentication and authorization. It can be obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. **Default Value**: N/A

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Table 8-22 Request body parameters

Parameter	Mandatory	Type	Description
cancel_strategy	Yes	String	**Definition**: Job stop policy. **Constraints**: N/A **Range** • **NONE**: Stops immediately without saving state. • **STOP_WITH_SAVEPOINT**: Creates a snapshot before stopping. • **STOP_WITH_DRAIN**: Stops in drain mode, triggers all window computations and sends watermarks before creating a snapshot and stopping. • **FORCE_CANCEL**: Forcefully cancels the job. This can only be triggered again when the job is already in the **CANCELLING** state. **Default Value**: N/A

Response Parameters

Status code: 204

None

Status code: 400

Table 8-23 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

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Status code: 401

Table 8-24 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 403

Table 8-25 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 404

Table 8-26 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 500

Table 8-27 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Example Requests

- Immediately stop the running Flink job without saving the job state.

```
POST /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/cancel

{
  "cancel_strategy" : "NONE"
}
```

- Stop the Flink job and create a savepoint snapshot before stopping to save the job state for future recovery.

```
POST /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/cancel

{
  "cancel_strategy" : "STOP_WITH_SAVEPOINT"
}
```

Example Responses

Status code: 204

None

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Status code: 400

```
{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter",
  "solution_msg" : "Please check the input parameters according to the documentation."
}
```

Status code: 401

```
{
  "error_code" : "AIDataLake.01011003",
  "error_msg" : "Auth Token not exists in header",
  "solution_msg" : "Please check if auth Token is included in the request header."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "Current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.01051001",
  "error_msg" : "Flink job 019f609a-e90c-xxxx-xxxx-a4ec9018e7f2 does not exist",
  "solution_msg" : "Please check if Flink job 019f609a-e90c-xxxx-xxxx-a4ec9018e7f2 is entered correctly or has been deleted."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
  "solution_msg" : "Contact operations for analysis."
}
```

Status Codes

Status Code	Description
204	Request submitted.
400	Invalid request parameters.
401	Authentication failed.
403	Insufficient permissions.
404	The Flink job does not exist.
500	Internal system error.

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8.1.3 Viewing Flink Job Details

Function

This API is used to obtain the detailed information of a Flink job instance. This API is synchronous. The response contains the complete configuration and running status of the job.

For job running events, see **Listing Flink Job Event Details**.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}

Table 8-28 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
job_id	Yes	String	**Definition**: Flink job ID, used to uniquely identify a Flink job. For details, see **Listing Flink Jobs**. **Constraints**: N/A **Range**: UUIDv7 format, fixed at 36 characters. **Default Value**: N/A

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Request Parameters

Table 8-29 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token, used for API authentication and authorization. It can be obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. **Default Value**: N/A

Response Parameters

Status code: 200

Table 8-30 Response body parameters

Parameter	Type	Description
job_id	String	**Definition**: Flink job ID. **Range**: UUIDv7 format, fixed at 36 characters. Only lowercase letters, digits, and hyphens (-) are allowed.
client_token	String	**Definition**: Client token, used for idempotency check of API calls. **Range**: 1 to 64 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.
name	String	**Definition**: Job name. **Range**: 1 to 128 characters. Must start and end with a letter or digit. Only letters, digits, underscores (_), and hyphens (-) are allowed.
deployment_id	String	**Definition**: ID of a deployed job. **Range**: 1 to 64 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.

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Parameter	Type	Description
endpoint_id	String	**Definition**: Endpoint ID for job execution. **Range**: UUID format, fixed at 36 characters.
endpoint_name	String	**Definition**: Endpoint name for job execution. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a lowercase letter and end with a lowercase letter or digit.
status	**FlinkJobStatus** object	**Definition**: Job status information.
job_agency	String	**Definition**: User-defined agency name, used to authorize the job to access OBS and other external resources. If not specified, the endpoint agency is used by default. **Range**: 1 to 64 characters.
obs_bucket_name	String	**Definition**: OBS bucket name, used to store job checkpoints, logs, etc. **Range**: 1 to 512 characters.
job_config	One of: • **ShowFlinkSqlParameterResponse** object • **ShowFlinkJarParameterResponse** object	**Definition**: Job configuration parameters, used to specify the Flink job type and execution parameters. The corresponding parameter structure is automatically selected based on the job type: **FLINK_SQL_JOB** corresponds to **ShowFlinkSqlParameterResponse**, **FLINK_JAR_JOB** corresponds to **ShowFlinkJarParameterResponse**.
resource_config	**ShowFlinkResourceConfigResponseBody** object	**Definition**: Resource configuration, including the job parallelism and resource specifications of each component.
image_config	**ShowFlinkJobImageConfigResponseBody** object	**Definition**: Image configuration, including the image information for Flink job execution.

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Parameter	Type	Description
flink_config	Map<String,String>	**Definition**: Flink configuration parameters, in key-value pairs. The key is the Flink configuration item name (e.g., **taskmanager.numberOfTaskSlots**), and the value is the corresponding configuration value, 1 to 1,024 characters. In addition to user configurations, this parameter also includes system-reserved parameters automatically generated by the system based on the job configuration (e.g., **execution.checkpointing.dir**, **execution.checkpointing.savepoint-dir**, **high-availability.storageDir**).
execution_mode	String	**Definition**: Flink job execution mode. **Range** • **STREAMING**: Streaming mode. • **BATCH**: Batch mode.
restore_strategy	**ShowRestoreStrategyResponseBody** object	**Definition**: Restoration policy configuration, including the Flink job state restoration type and the parameters corresponding to each type.
logging_config	**ShowFlinkLoggingConfigResponseBody** object	**Definition**: Log configuration, including the root log level and custom class log levels.
metric	**FlinkResourceMetric** object	**Definition**: Job metric information.
create_time	Long	**Definition**: Creation timestamp. **Range**: 0 to 4,102,416,000,000, 13-digit millisecond timestamp.
create_user	**FlinkCreateUser** object	**Definition**: Creator information.
update_time	Long	**Definition**: Update timestamp. **Range**: 0 to 4,102,416,000,000, 13-digit millisecond timestamp.
update_user	**FlinkUpdateUser** object	**Definition**: Updater information.

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Parameter	Type	Description
log_url	String	**Definition**: Log archive path (OBS URL), used to view job execution logs. **Range**: OBS URL format, 1 to 1,024 characters.
labels	Array of **FlinkLabel** objects	**Definition**: Tags, used for job classification and filtering.
description	String	**Definition**: Description. **Range**: 1 to 512 characters.
start_time	Long	**Definition**: Job start timestamp (time when the job entered the **RUNNING** state). **Range**: 0 to 4,102,416,000,000, 13-digit millisecond timestamp.
end_time	Long	**Definition**: Job end timestamp (time when the job entered the **FINISHED**, **CANCELLED**, or **FAILED** state). **Range**: 0 to 4,102,416,000,000, 13-digit millisecond timestamp.

Table 8-31 FlinkJobStatus

Parameter	Type	Description
state	String	**Definition**: Current job status. **Range** • **CREATED**: Created. • **STARTING**: Starting. • **RUNNING**: Running. • **CANCELLING**: Canceling. • **FAILED**: Failed. • **CANCELLED**: Canceled. • **FINISHED**: Finished.
state_message	String	**Definition**: Status message details, including supplementary information or error details for status changes. **Range**: 0 to 1,024 characters.

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Table 8-32 ShowFlinkSqlParameterResponse

Parameter	Type	Description
type	String	**Definition**: Job type, used to distinguish between Flink SQL jobs and Flink Jar jobs. **Range** • **FLINK_SQL_JOB**: Flink SQL job.
sql_script_file	String	**Definition**: OBS file path of the SQL script, used to specify the script file for the SQL job. **Range**: OBS URL format, 1 to 512 characters, starting with **obs://**.
dependency_jars	Array of strings	**Definition**: OBS path list of JAR files that the SQL job depends on, used to specify the JAR files required for job execution. Each path is in OBS URL format, 1 to 512 characters, starting with **obs://**.

Table 8-33 ShowFlinkJarParameterResponse

Parameter	Type	Description
type	String	**Definition**: Job type, used to distinguish between Flink SQL jobs and Flink Jar jobs. **Range** • **FLINK_JAR_JOB**: Flink Jar job.
main_jar	String	**Definition**: OBS path of the JAR file containing the main class, used to specify the entry JAR file. **Range**: 1 to 512 characters, starting with **obs://**.
main_class	String	**Definition**: Jar job entry class name, used to specify the entry class of the job. **Range**: Up to 512 characters.
main_args	Array of strings	**Definition**: Jar job entry class parameters, used to pass runtime parameters.

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Parameter	Type	Description
dependency_jars	Array of strings	**Definition**: OBS path of the Jar job dependency JAR files, used to specify the dependency JAR files required for job execution.
dependency_files	Array of strings	**Definition**: OBS path list of the Jar job dependency files, used to specify the dependency files required for job execution.

Table 8-34 ShowFlinkResourceConfigResponseBody

Parameter	Type	Description
parallelism	Integer	**Definition**: Job parallelism. **Range**: 1 to 1,000.
jobmanager_resource_spec	**ShowFlinkResourceSpecResponseBody** object	**Definition**: JobManager resource specification, including CPU, memory, disk, etc.
taskmanager_resource_spec	**ShowFlinkResourceSpecResponseBody** object	**Definition**: TaskManager resource specification, including CPU, memory, disk, etc.

Table 8-35 ShowFlinkResourceSpecResponseBody

Parameter	Type	Description
cpu	Integer	**Definition**: Number of CPU millicores, in millicores. **Range**: 500 to 48,000.
memory	Integer	**Definition**: Memory size, in MB. **Range**: 2,048 to 393,216.
disk	Integer	**Definition**: Pod ephemeral storage capacity, in GB. **Range**: 30 to 1,024.

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Table 8-36 ShowFlinkJobImageConfigResponseBody

Parameter	Type	Description
image_id	String	**Definition**: Image ID, the image used by the Flink job. **Range**: 2 to 64 characters.
image_version_id	String	**Definition**: Image version ID, the image version used by the Flink job. **Range**: 2 to 64 characters.
release_version	String	**Definition**: Version information of the Flink job, in the format **AIDataLake.<platform version>(Flink<Flink version>,JRE<JRE version>)**, for example, **AIDataLake.26.9.0(Flink1.20.0,JRE21)**.
image_version_type	String	**Definition**: Image version type used by the Flink job. **Range** • **STABLE**: Stable version. • **RECOMMEND**: Recommended version. • **BETA**: Beta version.

Table 8-37 ShowRestoreStrategyResponseBody

Parameter	Type	Description
restore_type	String	**Definition**: Restoration type, the job restoration policy. **Range** • **NONE**: Start without state. • **FROM_SAVEPOINT_ID**: Restore from a specified savepoint snapshot. • **FROM_CHECKPOINT_PATH**: Restore from a specified checkpoint path. • **FROM_SPECIFIED_TIMESTAMP**: Restore from a specified timestamp.

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Parameter	Type	Description
savepoint_id	String	**Definition**: Savepoint ID, uniquely identifying a snapshot. Returned when **restore_type** is **FROM_SAVEPOINT_ID**. **Range**: UUIDv7 format, fixed at 36 characters. Only lowercase letters, digits, and hyphens (-) are allowed.
checkpoint_path	String	**Definition**: Checkpoint storage path, pointing to the parent directory of the **_metadata** file. Returned only when **restore_type** is **FROM_CHECKPOINT_PATH**. **Range**: 1 to 512 characters, must start with **obs://**.
allow_non_restored_state	Boolean	**Definition**: Whether to allow ignoring partial operator state. Returned only when **restore_type** is **FROM_SAVEPOINT_ID** or **FROM_CHECKPOINT_PATH**. **Range** • **true**: Partial operator states can be ignored. If set to **true**, and the snapshot contains operator states that are no longer used by the current job, these states will be skipped instead of reporting an error. • **false**: Operator states cannot be ignored.
job_start_time_in_ms	Long	**Definition**: Timestamp for the data consumption start point of the source table, used to specify when the job starts consuming data from the source table. Returned only when **restore_type** is **FROM_SPECIFIED_TIMESTAMP**, and only supports Kafka source tables. **Range**: 0 to 4,102,416,000,000, 13-digit millisecond timestamp.

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Table 8-38 ShowFlinkLoggingConfigResponseBody

Parameter	Type	Description
root_logger_level	String	**Definition**: Root log level. **Range** • **TRACE**: Trace. • **DEBUG**: Debug. • **INFO**: Information. • **WARN**: Warning. • **ERROR**: Error.
log4j_loggers	Array of **ShowFlinkLog4jLoggersResponseBody** objects	**Definition**: Custom log class configuration list.

Table 8-39 ShowFlinkLog4jLoggersResponseBody

Parameter	Type	Description
logger_name	String	**Definition**: Log class name. **Range**: 1 to 256 characters.
logger_level	String	**Definition**: Log level. **Range** • **TRACE**: Trace. • **DEBUG**: Debug. • **INFO**: Information. • **WARN**: Warning. • **ERROR**: Error.

Table 8-40 FlinkResourceMetric

Parameter	Type	Description
total_memory	Long	**Definition**: Total memory, in MB. **Range**: 0 to 9,223,372,036,854,775,807.
total_cpu	Long	**Definition**: Total number of CPUs, in millicores. **Range**: 0 to 9,223,372,036,854,775,807.

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Parameter	Type	Description
total_disk	Long	**Definition**: Total disk capacity, in GB. **Range**: 0 to 9,223,372,036,854,775,807.

Table 8-41 FlinkCreateUser

Parameter	Type	Description
user_id	String	**Definition**: Creator user ID, used to identify the creator of the job. **Range**: 1 to 128 characters. Only letters and digits are allowed.
user_name	String	**Definition**: Creator username, used to display the name of the job creator. **Range**: 0 to 128 characters.

Table 8-42 FlinkUpdateUser

Parameter	Type	Description
user_id	String	**Definition**: Updater user ID, used to identify the updater of the job. **Range**: 1 to 128 characters. Only letters and digits are allowed.
user_name	String	**Definition**: Updater user name, used to display the name of the job updater. **Range**: 0 to 128 characters.

Table 8-43 FlinkLabel

Parameter	Type	Description
key	String	**Definition**: Tag key. **Range**: 1 to 128 characters. The equal sign (=) is not allowed.
value	String	**Definition**: Tag value. **Range**: 1 to 512 characters, with no character type restrictions.

Status code: 400

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Table 8-44 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 401

Table 8-45 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 403

Table 8-46 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 404

Table 8-47 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 500

Table 8-48 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

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Example Requests

View the complete details of the specified Flink job, including job configuration, resource configuration, image configuration, execution status, etc.

```
GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}
```

Example Responses

Status code: 200


```
{
  "job_id" : "019f609a-e90c-xxxx-xxxx-a4ec9018e7f2",
  "client_token" : "019f8cc4-1cf2-xxxx-xxxx-bf8634076872",
  "name" : "test-flink-job",
  "endpoint_id" : "4702a179-xxxx-xxxx-81c3-6cd4d8090671",
  "endpoint_name" : "test-endpoint",
  "status" : {
    "state" : "RUNNING"
  },
  "job_agency" : "test-agency",
  "obs_bucket_name" : "my-flink-bucket",
  "job_config" : {
    "type" : "FLINK_SQL_JOB",
    "sql_script_file" : "obs://my-flink-bucket/path/to/script.sql"
  },
  "resource_config" : {
    "parallelism" : 1,
    "jobmanager_resource_spec" : {
      "cpu" : 1000,
      "memory" : 4096,
      "disk" : 30
    },
    "taskmanager_resource_spec" : {
      "cpu" : 1000,
      "memory" : 4096,
      "disk" : 30
    }
  },
  "image_config" : {
    "image_id" : "de67c4dc-xxxx-xxxx-xxxx-db12828dab7a",
    "image_version_id" : "e0ebd72a-xxxx-xxxx-xxxx-1252617297fb",
    "release_version" : "AIDataLake.26.9.0(Flink1.20.0,JRE21)",
    "image_version_type" : "STABLE"
  },
  "flink_config" : {
    "taskmanager.numberOfTaskSlots" : "1",
    "high-availability.storageDir" : "obs://my-flink-bucket/aidatalake/workspace_57fd5733-xxxx-xxxx-85a9-c6e7f39b1891/flink/endpoint_4702a179-xxxx-xxxx-81c3-6cd4d8090671/jobs/ha/019f609a-e90c-xxxx-xxxx-a4ec9018e7f2",
    "execution.checkpointing.savepoint-dir" : "obs://my-flink-bucket/aidatalake/workspace_57fd5733-xxxx-xxxx-85a9-c6e7f39b1891/flink/endpoint_4702a179-xxxx-xxxx-81c3-6cd4d8090671/jobs/savepoint/019f609a-e90c-xxxx-xxxx-a4ec9018e7f2",
    "execution.checkpointing.num-retained" : "6",
    "execution.checkpointing.dir" : "obs://my-flink-bucket/aidatalake/workspace_57fd5733-xxxx-xxxx-85a9-c6e7f39b1891/flink/endpoint_4702a179-xxxx-xxxx-81c3-6cd4d8090671/jobs/checkpoint/019f609a-e90c-xxxx-xxxx-a4ec9018e7f2"
  },
  "execution_mode" : "STREAMING",
  "restore_strategy" : {
    "restore_type" : "NONE"
  },
  "logging_config" : {
    "root_logger_level" : "INFO"
  },
```


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```
 "metric" : {
   "total_cpu" : 2000,
   "total_memory" : 8192,
   "total_disk" : 60
 },
 "create_time" : 1705896000000,
 "create_user" : {
   "user_id" : "001",
   "user_name" : "testuser"
 },
 "update_time" : 1705896000000,
 "update_user" : {
   "user_id" : "001",
   "user_name" : "testuser"
 },
 "log_url" : "obs://my-flink-bucket/aidatalake/workspace_57fd5733-xxxx-xxxx-85a9-c6e7f39b1891/flink/
endpoint_4702a179-xxxx-xxxx-81c3-6cd4d8090671/jobs/logs/019f609a-e90c-xxxx-xxxx-a4ec9018e7f2",
 "description" : "Test Flink job.",
 "start_time" : 1705896545546,
 "end_time" : 0
}
```


Status code: 400


```
{
 "error_code" : "AIDataLake.01011001",
 "error_msg" : "Invalid parameter",
 "solution_msg" : "Please check the input parameters according to the documentation."
}
```


Status code: 401


```
{
 "error_code" : "AIDataLake.01011003",
 "error_msg" : "Auth Token not exists in header",
 "solution_msg" : "Please check if auth Token is included in the request header."
}
```


Status code: 403


```
{
 "error_code" : "AIDataLake.01011005",
 "error_msg" : "Current account has no permission",
 "solution_msg" : "Please connect administrators to add permission."
}
```


Status code: 404


```
{
 "error_code" : "AIDataLake.01051001",
 "error_msg" : "Flink job 019f609a-e90c-xxxx-xxxx-a4ec9018e7f2 does not exist",
 "solution_msg" : "Please check if Flink job 019f609a-e90c-xxxx-xxxx-a4ec9018e7f2 is entered correctly or
has been deleted."
}
```


Status code: 500


```
{
 "error_code" : "AIDataLake.01010001",
 "error_msg" : "Internal system error",
 "solution_msg" : "Contact operations for analysis."
}
```


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Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Authentication failed.
403	Insufficient permissions.
404	The Flink job does not exist.
500	Internal system error.

8.1.4 Querying Flink Job Status

Function

This API is used to query the running status of a Flink job. This API is synchronous. The response contains the current status of the job.

You can obtain the complete job information by calling the **Viewing Flink Job Details** API, or obtain the job running events by calling the **Listing Flink Job Event Details** API.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/state

Table 8-49 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
job_id	Yes	String	**Definition**: Flink job ID, used to uniquely identify a Flink job. For details, see **Listing Flink Jobs**. **Constraints**: N/A **Range**: UUIDv7 format, fixed at 36 characters. **Default Value**: N/A

Request Parameters

Table 8-50 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token, used for API authentication and authorization. It can be obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. **Default Value**: N/A

Response Parameters

Status code: 200

Table 8-51 Response body parameters

Parameter	Type	Description
job_id	String	**Definition**: Flink job ID. **Range**: UUIDv7 format, fixed at 36 characters. Only lowercase letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
state	String	**Definition**: Current job status. **Range** • **CREATED**: Created. • **STARTING**: Starting. • **RUNNING**: Running. • **CANCELLING**: Canceling. • **FAILED**: Failed. • **CANCELLED**: Canceled. • **FINISHED**: Finished.

Status code: 400

Table 8-52 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 401

Table 8-53 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.

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Parameter	Type	Description
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 403

Table 8-54 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 404

Table 8-55 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 500

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Table 8-56 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Example Requests

Query the current execution status of a specified Flink job, used to monitor the job progress and determine whether the job is complete.

```
GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/state
```

Example Responses

Status code: 200

```
{
  "job_id" : "019f609a-e90c-xxxx-xxxx-a4ec9018e7f2",
  "state" : "RUNNING"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter",
  "solution_msg" : "Please check the input parameters according to the documentation."
}
```

Status code: 401

```
{
  "error_code" : "AIDataLake.01011003",
  "error_msg" : "Auth Token not exists in header",
  "solution_msg" : "Please check if auth Token is included in the request header."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "Current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.01051001",
```

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```
  "error_msg" : "Flink job 019f609a-e90c-xxxx-xxxx-a4ec9018e7f2 does not exist",
  "solution_msg" : "Please check if Flink job 019f609a-e90c-xxxx-xxxx-a4ec9018e7f2 is entered correctly or has been deleted."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
  "solution_msg" : "Contact operations for analysis."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Authentication failed.
403	Insufficient permissions.
404	The Flink job does not exist.
500	Internal system error.

8.1.5 Listing Flink Jobs

Function

This API is used to list Flink jobs under a workspace. This API is synchronous. The response contains summary information of the jobs. Pagination and multi-condition filtering are supported.

For complete information about a specific job, see **View Flink Job Details**.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/flink-jobs

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Table 8-57 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Table 8-58 Query Parameters

Parameter	Mandatory	Type	Description
marker	No	String	**Definition**: Pagination cursor, used to specify the starting position for the current query. **Constraints**: Leave it empty or pass an empty string for the first query. To page backward to earlier data (**page_reverse**: **false**), pass the **next_marker** from the previous response. To page forward to newer data (**page_reverse**: **true**), pass the **previous_marker** from the previous response. In the latter case, this parameter is mandatory. **Range**: UUID format, 36 characters. Only letters, digits, underscores (_), and hyphens (-) are supported. **Default Value**: N/A
limit	No	Integer	**Definition**: Number of records to return, used for pagination. **Constraints**: N/A **Range**: An integer from 1 to 1,000. **Default Value**: **100**.

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Parameter	Mandatory	Type	Description
page_reverse	No	Boolean	**Definition**: Pagination direction, used to control the page turning direction. **Constraints**: Used together with the **marker** parameter. When **page_reverse=true**, the **marker** parameter must be passed. Otherwise, a 400 error is returned. **Range** • **true**: Page forward (data before **marker** is queried). • **false**: Page backward (data after **marker** is queried). **Default Value**: **false**
create_time_after	No	Long	**Definition**: Start time for filtering (inclusive), used to filter by creation time. **Constraints**: N/A **Range**: 0 to 4,102,416,000,000, 13-digit millisecond timestamp. **Default Value**: N/A
create_time_before	No	Long	**Definition**: End time for filtering (inclusive), used to filter by creation time. **Constraints**: N/A **Range**: 0 to 4,102,416,000,000, 13-digit millisecond timestamp. **Default Value**: N/A
endpoint_id	No	String	**Definition**: Endpoint ID of the job, used to filter jobs by endpoint. **Constraints**: N/A **Range**: UUID format, fixed at 36 characters. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
endpoint_name	No	String	**Definition**: Endpoint name of the job, used to filter jobs by endpoint. It can be obtained by calling the **Listing Endpoints** or **Listing All Endpoints** API. **Constraints**: N/A **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a lowercase letter and end with a lowercase letter or digit. **Default Value**: N/A
name	No	String	**Definition**: Job name, used to filter jobs by fuzzy name matching. **Constraints**: N/A **Range**: 1 to 128 characters. Must start and end with a letter or digit. Only letters, digits, underscores (_), and hyphens (-) are allowed. **Default Value**: N/A
job_id	No	String	**Definition**: Flink job ID, used to filter jobs by job ID. It can be obtained from the response of **Creating a Flink Job**. **Constraints**: N/A **Range**: UUIDv7 format, fixed at 36 characters. **Default Value**: N/A
deployment_id	No	String	**Definition**: Deployed job ID, used to filter jobs by deployment ID. **Constraints**: N/A **Range**: 1 to 64 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
state	No	Array of strings	**Definition**: Flink job status, used to filter the job list by status. The array elements are FlinkJobState enum values: • **CREATED**: Created. • **STARTING**: Starting. • **RUNNING**: Running. • **CANCELLING**: Canceling. • **FAILED**: Failed. • **CANCELLED**: Canceled. • **FINISHED**: Finished. **Constraints**: N/A
job_type	No	String	**Definition**: Job type, used to filter the list by job type. **Constraints**: N/A **Range** • **FLINK_SQL_JOB**: SQL job. • **FLINK_JAR_JOB**: Jar job. **Default Value**: N/A
execution_mode	No	String	**Definition**: Execution mode, used to filter the job list by execution mode. **Constraints**: N/A **Range** • **STREAMING**: Streaming mode. • **BATCH**: Batch mode. **Default Value**: N/A
create_user_id	No	String	**Definition**: Creator user ID (same as the IAM user ID), used to filter jobs by creator. For details, see **Obtaining an Account ID**. **Constraints**: N/A **Range**: 1 to 256 characters. Only letters and digits are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
labels	No	Array of strings	**Definition**: Tag filter criteria, used to filter jobs by tags. Format: key=value. Multiple tags are supported. **Constraints**: Up to 10 tags.

Request Parameters

Table 8-59 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token, used for API authentication and authorization. It can be obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. **Default Value**: N/A

Response Parameters

Status code: 200

Table 8-60 Response body parameters

Parameter	Type	Description
page_info	**MarkerPageInfo** object	**Definition**: Pagination cursor information.
jobs	Array of **FlinkJobSummary** objects	**Definition**: Detailed Flink job list, containing 0 to 1,000 FlinkJobSummary objects.

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Table 8-61 MarkerPageInfo

Parameter	Type	Description
next_marker	String	**Definition**: Cursor for paging backward to earlier data, used to obtain data created earlier than the current page. A null value indicates no earlier data. **Range**: UUID format, 36 characters. Example: **6c98db52-cac2-xxxx-xxxx-b7793e95557d**.
previous_marker	String	**Definition**: Cursor for paging forward to newer data, used together with **page_reverse** set to **true** to obtain data created later than the current page. A null value indicates that the current page is already the latest. **Range**: UUID format, 36 characters. Example: **6c98db52-cac2-xxxx-xxxx-b7793e95557d**.
current_count	Integer	**Definition**: Number of data items on the current page, used to identify the amount of data returned in the current response. **Range**: Integer greater than or equal to 0. Maximum value: **1000**.

Table 8-62 FlinkJobSummary

Parameter	Type	Description
job_id	String	**Definition**: Flink job ID. **Range**: UUIDv7 format, fixed at 36 characters. Only lowercase letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: Job name. **Range**: 1 to 128 characters. Must start and end with a letter or digit. Only letters, digits, underscores (_), and hyphens (-) are allowed.
endpoint_id	String	**Definition**: Endpoint ID for job execution. **Range**: UUID format, fixed at 36 characters.

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Parameter	Type	Description
endpoint_name	String	**Definition**: Endpoint name for job execution. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a lowercase letter and end with a lowercase letter or digit.
job_type	String	**Definition**: Job type. **Range** • **FLINK_JAR_JOB**: Jar job. • **FLINK_SQL_JOB**: SQL job.
status	**FlinkJobStatus** object	**Definition**: Job status information, including the status value and status message.
execution_mode	String	**Definition**: Execution mode, used to specify the Flink job execution mode. **Range** • **STREAMING**: Streaming mode. • **BATCH**: Batch mode.
metric	**FlinkResourceMetric** object	**Definition**: Job metric information, including CPU, memory, and disk usage.
create_time	Long	**Definition**: Creation timestamp. **Range**: 0 to 4,102,416,000,000, 13-digit millisecond timestamp.
create_user	**FlinkCreateUser** object	**Definition**: Creator information.
update_time	Long	**Definition**: Update timestamp. **Range**: 0 to 4,102,416,000,000, 13-digit millisecond timestamp.
update_user	**FlinkUpdateUser** object	**Definition**: Updater information.
log_url	String	**Definition**: Log archive path (OBS URL), used to view job execution logs. **Range**: OBS URL format, 1 to 1,024 characters.
description	String	**Definition**: Job description. **Range**: 1 to 512 characters.

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Parameter	Type	Description
start_time	Long	**Definition**: Job start timestamp (time when the job entered the **RUNNING** state). **Range**: 0 to 4,102,416,000,000, 13-digit millisecond timestamp.
end_time	Long	**Definition**: Job end timestamp (time when the job entered the **FINISHED**, **CANCELLED**, or **FAILED** state). **Range**: 0 to 4,102,416,000,000, 13-digit millisecond timestamp.

Table 8-63 FlinkJobStatus

Parameter	Type	Description
state	String	**Definition**: Current job status. **Range** • **CREATED**: Created. • **STARTING**: Starting. • **RUNNING**: Running. • **CANCELLING**: Canceling. • **FAILED**: Failed. • **CANCELLED**: Canceled. • **FINISHED**: Finished.
state_message	String	**Definition**: Status message details, including supplementary information or error details for status changes. **Range**: 0 to 1,024 characters.

Table 8-64 FlinkResourceMetric

Parameter	Type	Description
total_memory	Long	**Definition**: Total memory, in MB. **Range**: 0 to 9,223,372,036,854,775,807.
total_cpu	Long	**Definition**: Total number of CPUs, in millicores. **Range**: 0 to 9,223,372,036,854,775,807.

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Parameter	Type	Description
total_disk	Long	**Definition**: Total disk capacity, in GB. **Range**: 0 to 9,223,372,036,854,775,807.

Table 8-65 FlinkCreateUser

Parameter	Type	Description
user_id	String	**Definition**: Creator user ID, used to identify the creator of the job. **Range**: 1 to 128 characters. Only letters and digits are allowed.
user_name	String	**Definition**: Creator username, used to display the name of the job creator. **Range**: 0 to 128 characters.

Table 8-66 FlinkUpdateUser

Parameter	Type	Description
user_id	String	**Definition**: Updater user ID, used to identify the updater of the job. **Range**: 1 to 128 characters. Only letters and digits are allowed.
user_name	String	**Definition**: Updater user name, used to display the name of the job updater. **Range**: 0 to 128 characters.

Status code: 400

Table 8-67 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.

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Parameter	Type	Description
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 401

Table 8-68 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 403

Table 8-69 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 500

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Table 8-70 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Example Requests

- List running Flink jobs in the workspace, with a maximum of 10 records per page.

  ```
  GET /v2/workspaces/{workspace_id}/flink-jobs?limit=10&state=RUNNING
  ```

- List SQL jobs in streaming mode in the workspace, with a maximum of 20 records per page.

  ```
  GET /v2/workspaces/{workspace_id}/flink-jobs?
  limit=20&job_type=FLINK_SQL_JOB&execution_mode=STREAMING
  ```

Example Responses

Status code: 200

- List running Flink jobs in the workspace, with a maximum of 10 records per page.

  ```
  {
    "page_info" : {
      "current_count" : 1
    },
    "jobs" : [ {
      "job_id" : "019f609a-e90c-xxxx-xxxx-a4ec9018e7f2",
      "name" : "test-flink-job",
      "endpoint_id" : "4702a179-xxxx-xxxx-81c3-6cd4d8090671",
      "endpoint_name" : "test-endpoint",
      "job_type" : "FLINK_JAR_JOB",
      "status" : {
        "state" : "RUNNING"
      },
      "execution_mode" : "STREAMING",
      "metric" : {
        "total_cpu" : 2000,
        "total_memory" : 8192,
        "total_disk" : 60
      },
      "create_time" : 1705896000000,
      "create_user" : {
        "user_id" : "1001",
        "user_name" : "testuser"
      },
      "update_time" : 1705896000000,
  ```

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```
    "update_user" : {
      "user_id" : "1001",
      "user_name" : "testuser"
    },
    "log_url" : "obs://my-flink-bucket/aidatalake/workspace_57fd5733-xxxx-xxxx-85a9-c6e7f39b1891/
flink/endpoint_4702a179-xxxx-xxxx-81c3-6cd4d8090671/jobs/logs/019f609a-e90c-xxxx-xxxx-
a4ec9018e7f2",
    "description" : "Test Flink job.",
    "start_time" : 1705897000000,
    "end_time" : 0
  } ]
}
```


- List SQL jobs in streaming mode in the workspace, with a maximum of 20 records per page.


```
{
  "page_info" : {
    "current_count" : 1
  },
  "jobs" : [ {
    "job_id" : "019f609b-f80d-xxxx-xxxx-b5ec9018e7f3",
    "name" : "test-sql-streaming-job",
    "endpoint_id" : "4702a179-xxxx-xxxx-81c3-6cd4d8090671",
    "endpoint_name" : "test-endpoint",
    "job_type" : "FLINK_SQL_JOB",
    "status" : {
      "state" : "FAILED",
      "state_message" : "START TIMEOUT"
    },
    "execution_mode" : "STREAMING",
    "metric" : {
      "total_cpu" : 2000,
      "total_memory" : 8192,
      "total_disk" : 60
    },
    "create_time" : 1705896000000,
    "create_user" : {
      "user_id" : "1001",
      "user_name" : "testuser"
    },
    "update_time" : 1705896000000,
    "update_user" : {
      "user_id" : "1001",
      "user_name" : "testuser"
    },
    "log_url" : "obs://my-flink-bucket/aidatalake/workspace_57fd5733-xxxx-xxxx-85a9-c6e7f39b1891/
flink/endpoint_4702a179-xxxx-xxxx-81c3-6cd4d8090671/jobs/logs/019f609b-f80d-xxxx-xxxx-
b5ec9018e7f3",
    "description" : "Test SQL streaming mode job.",
    "start_time" : 0,
    "end_time" : 1705898180816
  } ]
}
```


Status code: 400


```
{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter",
  "solution_msg" : "Please check the input parameters according to the documentation."
}
```


Status code: 401


```
{
  "error_code" : "AIDataLake.01011003",
  "error_msg" : "Auth Token not exists in header",
  "solution_msg" : "Please check if auth Token is included in the request header."
}
```


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Status code: 403

```
{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "Current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
  "solution_msg" : "Contact operations for analysis."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Authentication failed.
403	Insufficient permissions.
500	Internal system error.

8.1.6 Listing Flink Job Event Details

Function

This API is used to list running events of a Flink job. This API is synchronous. The response contains event details generated during job execution, which can be used for problem diagnosis and running status tracking.

For complete job information, see **Viewing Flink Job Details**, or for job execution status, see **Querying Flink Job Status**.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/events

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Table 8-71 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
job_id	Yes	String	**Definition**: Flink job ID, used to uniquely identify a Flink job. For details, see **Listing Flink Jobs**. **Constraints**: N/A **Range**: UUIDv7 format, fixed at 36 characters. **Default Value**: N/A

Table 8-72 Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	**Definition**: Index offset, used for pagination, starting from 0. **Constraints**: N/A **Range**: An integer from 0 to 100,000. **Default Value**: **0**
limit	No	Integer	**Definition**: Number of records to return, used for pagination. **Constraints**: N/A **Range**: An integer from 1 to 1,000. **Default Value**: **100**.

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Parameter	Mandatory	Type	Description
create_time_after	No	Long	**Definition**: Start time for filtering (inclusive), used to filter by creation time. **Constraints**: N/A **Range**: 0 to 4,102,416,000,000, 13-digit millisecond timestamp. **Default Value**: N/A
create_time_before	No	Long	**Definition**: End time for filtering (inclusive), used to filter by creation time. **Constraints**: N/A **Range**: 0 to 4,102,416,000,000, 13-digit millisecond timestamp. **Default Value**: N/A

Request Parameters

Table 8-73 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token, used for API authentication and authorization. It can be obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. **Default Value**: N/A

Response Parameters

Status code: 200

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Table 8-74 Response body parameters

Parameter	Type	Description
count	Integer	**Definition**: Total number of job events. **Range**: 0 to 2,147,483,647.
job_events	Array of **FlinkJobEvent** objects	**Definition**: Flink job event list. Can display 0 to 1,000 FlinkJobEvent objects.

Table 8-75 FlinkJobEvent

Parameter	Type	Description
event_id	String	**Definition**: Run event ID. **Range**: UUIDv7 format, fixed at 36 characters. Only lowercase letters, digits, and hyphens (-) are allowed.
create_time	Long	**Definition**: Event creation timestamp. **Range**: 0 to 4,102,416,000,000, 13-digit millisecond timestamp.
event_name	String	**Definition**: Run event name. **Range**: 1 to 128 characters.
event_message	String	**Definition**: Run event information. **Range**: 0 to 1,024 characters.

Status code: 400

Table 8-76 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

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Status code: 401

Table 8-77 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 403

Table 8-78 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 404

Table 8-79 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 500

Table 8-80 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Example Requests

List the running event details of a specified Flink job for problem diagnosis and execution status tracking.

```
GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/events?offset=0&limit=10
```

Example Responses

Status code: 200

```
{
  "count" : 1,
  "job_events" : [ {
    "event_id" : "019f6a01-7d2e-xxxx-xxxx-9b1f4e5a6b7c",
    "create_time" : 1705896000000,
    "event_name" : "CREATE",
    "event_message" : "user(testuser) create new job, wait for start"
  } ]
}
```

Status code: 400

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```
{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter",
  "solution_msg" : "Please check the input parameters according to the documentation."
}
```

Status code: 401

```
{
  "error_code" : "AIDataLake.01011003",
  "error_msg" : "Auth Token not exists in header",
  "solution_msg" : "Please check if auth Token is included in the request header."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "Current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.01051001",
  "error_msg" : "Flink job 019f609a-e90c-xxxx-xxxx-a4ec9018e7f2 does not exist",
  "solution_msg" : "Please check if Flink job 019f609a-e90c-xxxx-xxxx-a4ec9018e7f2 is entered correctly or has been deleted."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
  "solution_msg" : "Contact operations for analysis."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Authentication failed.
403	Insufficient permissions.
404	The Flink job does not exist.
500	Internal system error.

8.2 Flink Savepoint Management

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8.2.1 Creating a Flink Job Savepoint

Function

This API is used to trigger a savepoint for a running Flink job to save the current job state. This API is asynchronous. The response only indicates that the snapshot creation request has been received. The actual snapshot generation status can be queried by calling the **Listing Flink Job Savepoints** API.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/flink-savepoints

Table 8-81 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
job_id	Yes	String	**Definition**: Flink job ID, used to uniquely identify a Flink job. For details, see **Listing Flink Jobs**. **Constraints**: N/A **Range**: UUIDv7 format, fixed at 36 characters. **Default Value**: N/A

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Request Parameters

Table 8-82 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token, used for API authentication and authorization. It can be obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. **Default Value**: N/A

Table 8-83 Request body parameters

Parameter	Mandatory	Type	Description
description	No	String	**Definition**: Job snapshot description. **Constraints**: N/A **Range**: 0 to 512 characters. **Default Value**: N/A
format	No	String	**Definition**: Savepoint storage format. **Constraints**: N/A **Range** • **NATIVE**: Native format, compatible with Flink internal state. • **CANONICAL**: Canonical format, cross-version compatible. **Default Value**: **NATIVE**.

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Parameter	Mandatory	Type	Description
drain_mode_enabled	No	Boolean	**Definition**: Whether to enable Drain mode. If enabled, watermarks are sent to all operators before triggering a savepoint to complete window calculations, and then the state snapshot is saved. **Constraints**: N/A **Range** • **true**: The Drain mode is enabled. • **false**: The Drain mode is disabled. **Default Value**: **false**

Response Parameters

Status code: 201

Table 8-84 Response body parameters

Parameter	Type	Description
savepoint_id	String	**Definition**: Savepoint unique identifier. **Range**: UUIDv7 format, fixed at 36 characters. Only lowercase letters, digits, and hyphens (-) are allowed.

Status code: 400

Table 8-85 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.

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Parameter	Type	Description
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 401

Table 8-86 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 403

Table 8-87 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 404

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Table 8-88 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 500

Table 8-89 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Example Requests

Create a savepoint snapshot for the running Flink job, saving the job state in NATIVE format.

```
POST /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/flink-savepoints

{
  "description" : "Pre-upgrade backup.",
  "format" : "NATIVE"
}
```

Example Responses

Status code: 201

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```
{
  "savepoint_id" : "019f68a2-5e11-xxxx-xxxx-6e670d65ab03"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter",
  "solution_msg" : "Please check the input parameters according to the documentation."
}
```

Status code: 401

```
{
  "error_code" : "AIDataLake.01011003",
  "error_msg" : "Auth Token not exists in header",
  "solution_msg" : "Please check if auth Token is included in the request header."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "Current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.01051001",
  "error_msg" : "Flink job 019f609a-e90c-xxxx-xxxx-a4ec9018e7f2 does not exist",
  "solution_msg" : "Please check if Flink job 019f609a-e90c-xxxx-xxxx-a4ec9018e7f2 is entered correctly or has been deleted."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
  "solution_msg" : "Contact operations for analysis."
}
```

Status Codes

Status Code	Description
201	Request submitted.
400	Invalid request parameters.
401	Authentication failed.
403	Insufficient permissions.
404	The Flink job does not exist.
500	Internal system error.

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8.2.2 Listing Flink Job Savepoints

Function

This API is used to query the savepoint records of a specified Flink job, returning a paginated list. This API is synchronous. The response contains detailed savepoint information.

For details of a specific savepoint, see **Querying Flink Job Savepoint Details**.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/flink-savepoints

Table 8-90 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
job_id	Yes	String	**Definition**: Flink job ID, used to uniquely identify a Flink job. For details, see **Listing Flink Jobs**. **Constraints**: N/A **Range**: UUIDv7 format, fixed at 36 characters. **Default Value**: N/A

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Table 8-91 Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	**Definition**: Index offset, used for pagination, starting from 0. **Constraints**: N/A **Range**: An integer from 0 to 100,000. **Default Value**: **0**
limit	No	Integer	**Definition**: Number of records to return, used for pagination. **Constraints**: N/A **Range**: An integer from 1 to 1,000. **Default Value**: **100**.
create_time_after	No	Long	**Definition**: Start time for filtering (inclusive), used to filter by creation time. **Constraints**: N/A **Range**: 0 to 4,102,416,000,000, 13-digit millisecond timestamp. **Default Value**: N/A
create_time_before	No	Long	**Definition**: End time for filtering (inclusive), used to filter by creation time. **Constraints**: N/A **Range**: 0 to 4,102,416,000,000, 13-digit millisecond timestamp. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
state	No	String	**Definition**: Savepoint status, used to filter the savepoint list by status. **Constraints**: N/A **Range** • **TRIGGER_PENDING**: Queued for execution. • **IN_PROGRESS**: In progress. • **COMPLETED**: Triggered successfully. • **FAILED**: Trigger failed. • **ABANDONED**: Abandoned/ invalid. **Default Value**: N/A
trigger_type	No	String	**Definition**: Savepoint trigger type, used to filter the savepoint list by trigger type. **Constraints**: N/A **Range**: Fixed value: **USER_REQUEST**, indicating a manually triggered savepoint. **Default Value**: N/A

Request Parameters

Table 8-92 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token, used for API authentication and authorization. It can be obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. **Default Value**: N/A

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Response Parameters

Status code: 200

Table 8-93 Response body parameters

Parameter	Type	Description
count	Integer	**Definition**: Total number of savepoints. **Range**: 0 to 2,147,483,647.
savepoints	Array of **FlinkSavepointSummary** objects	**Definition**: Savepoint summary information list. Can display 0 to 1,000 FlinkSavepointSummary objects.

Table 8-94 FlinkSavepointSummary

Parameter	Type	Description
savepoint_id	String	**Definition**: Savepoint unique identifier. **Range**: UUIDv7 format, fixed at 36 characters. Only lowercase letters, digits, and hyphens (-) are allowed.
job_id	String	**Definition**: ID of the associated Flink job. **Range**: UUIDv7 format, fixed at 36 characters. Only lowercase letters, digits, and hyphens (-) are allowed.
trigger_type	String	**Definition**: Savepoint trigger type. **Range**: Fixed value: **USER_REQUEST**, indicating a manually triggered savepoint.
status	**FlinkSavepointStatus** object	**Definition**: Savepoint status information.
created_time	Long	**Definition**: Creation timestamp. **Range**: 0 to 4,102,416,000,000, 13-digit millisecond timestamp.
location	String	**Definition**: Snapshot storage path. **Range**: 1 to 512 characters, must start with **obs://**.
description	String	**Definition**: Job snapshot description. **Range**: 0 to 512 characters.

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Table 8-95 FlinkSavepointStatus

Parameter	Type	Description
state	String	**Definition**: Current savepoint status. **Range** • **TRIGGER_PENDING**: Queued for execution. • **IN_PROGRESS**: In progress. • **COMPLETED**: Triggered successfully. • **FAILED**: Trigger failed. • **ABANDONED**: Abandoned/invalid.
state_message	String	**Definition**: Status message details. **Range**: 0 to 512 characters.

Status code: 400

Table 8-96 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 401

Table 8-97 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 403

Table 8-98 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 404

Table 8-99 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

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Status code: 500

Table 8-100 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Example Requests

List savepoints of a specified Flink job. By default, the API returns results in reverse chronological order of creation time, with a maximum of 10 records per page.

```
GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/flink-savepoints?offset=0&limit=10
```

Example Responses

Status code: 200

```
{
  "count" : 1,
  "savepoints" : [ {
    "savepoint_id" : "019f68a2-5e11-xxxx-xxxx-6e670d65ab03",
    "job_id" : "019f609a-e90c-xxxx-xxxx-a4ec9018e7f2",
    "trigger_type" : "USER_REQUEST",
    "status" : {
      "state" : "COMPLETED"
    },
    "created_time" : 1768444200000,
    "location" : "obs://my-flink-bucket/aidatalake/workspace_57fd5733-xxxx-xxxx-85a9-c6e7f39b1891/flink/
endpoint_4702a179-xxxx-xxxx-81c3-6cd4d8090671/jobs/savepoint/019f609a-e90c-xxxx-xxxx-
a4ec9018e7f2/2026-01-15_10-30-00/savepoint-2bf36d-c160c7d530c8",
    "description" : "Pre-upgrade backup."
  } ]
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter",
  "solution_msg" : "Please check the input parameters according to the documentation."
}
```

Status code: 401

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```
{
  "error_code" : "AIDataLake.01011003",
  "error_msg" : "Auth Token not exists in header",
  "solution_msg" : "Please check if auth Token is included in the request header."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "Current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.01051001",
  "error_msg" : "Flink job 019f609a-e90c-xxxx-xxxx-a4ec9018e7f2 does not exist",
  "solution_msg" : "Please check if Flink job 019f609a-e90c-xxxx-xxxx-a4ec9018e7f2 is entered correctly or has been deleted."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
  "solution_msg" : "Contact operations for analysis."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Authentication failed.
403	Insufficient permissions.
404	The Flink job does not exist.
500	Internal system error.

8.2.3 Querying Flink Job Savepoint Details

Function

This API is used to obtain the detailed information of a specified savepoint. This API is synchronous. The response contains the complete status and configuration information of the savepoint.

For the savepoint list, see **Listing Flink Job Savepoints**.

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Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/flink-savepoints/{savepoint_id}

Table 8-101 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
job_id	Yes	String	**Definition**: Flink job ID, used to uniquely identify a Flink job. For details, see **Listing Flink Jobs**. **Constraints**: N/A **Range**: UUIDv7 format, fixed at 36 characters. **Default Value**: N/A
savepoint_id	Yes	String	**Definition**: Unique savepoint identifier, used to uniquely identify a Flink snapshot. For details, see **Listing Flink Job Savepoints**. **Constraints**: N/A **Range**: UUIDv7 format, fixed at 36 characters. **Default Value**: N/A

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Request Parameters

Table 8-102 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token, used for API authentication and authorization. It can be obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. **Default Value**: N/A

Response Parameters

Status code: 200

Table 8-103 Response body parameters

Parameter	Type	Description
savepoint_id	String	**Definition**: Savepoint unique identifier. **Range**: UUIDv7 format, fixed at 36 characters. Only lowercase letters, digits, and hyphens (-) are allowed.
job_id	String	**Definition**: ID of the associated Flink job. **Range**: UUIDv7 format, fixed at 36 characters. Only lowercase letters, digits, and hyphens (-) are allowed.
trigger_type	String	**Definition**: Savepoint trigger type. **Range**: Fixed value: **USER_REQUEST**, indicating a manually triggered savepoint.
format	String	**Definition**: Savepoint storage format. **Range** • **NATIVE**: Native format. • **CANONICAL**: Canonical format.
status	**FlinkSavepointStatus** object	**Definition**: Savepoint status information.

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Parameter	Type	Description
drain_mode_enabled	Boolean	**Definition**: Whether to enable Drain mode. If enabled, watermarks are sent to all operators before triggering a savepoint to complete window calculations, and then the state snapshot is saved. **Range** • **true**: The Drain mode is enabled. • **false**: The Drain mode is disabled.
location	String	**Definition**: Savepoint storage path. **Range**: 1 to 512 characters, must start with **obs://**.
created_time	Long	**Definition**: Creation timestamp. **Range**: 0 to 4,102,416,000,000, 13-digit millisecond timestamp.
completed_time	Long	**Definition**: Completion timestamp. **Range**: 0 to 4,102,416,000,000, 13-digit millisecond timestamp.
create_user	**FlinkCreateUser** object	**Definition**: Job snapshot creator information.
description	String	**Definition**: Job snapshot description. **Range**: 0 to 512 characters.

Table 8-104 FlinkSavepointStatus

Parameter	Type	Description
state	String	**Definition**: Current savepoint status. **Range** • **TRIGGER_PENDING**: Queued for execution. • **IN_PROGRESS**: In progress. • **COMPLETED**: Triggered successfully. • **FAILED**: Trigger failed. • **ABANDONED**: Abandoned/invalid.
state_message	String	**Definition**: Status message details. **Range**: 0 to 512 characters.

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Table 8-105 FlinkCreateUser

Parameter	Type	Description
user_id	String	**Definition**: Creator user ID, used to identify the creator of the job. **Range**: 1 to 128 characters. Only letters and digits are allowed.
user_name	String	**Definition**: Creator username, used to display the name of the job creator. **Range**: 0 to 128 characters.

Status code: 400

Table 8-106 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 401

Table 8-107 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.

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Parameter	Type	Description
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 403

Table 8-108 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 404

Table 8-109 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 500

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Table 8-110 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Example Requests

Query the detailed information of a specified savepoint, including status, storage path, creation time, etc.

```
GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/flink-savepoints/{savepoint_id}
```

Example Responses

Status code: 200

```
{
  "savepoint_id" : "019f68a2-5e11-xxxx-xxxx-6e670d65ab03",
  "job_id" : "019f609a-e90c-xxxx-xxxx-a4ec9018e7f2",
  "trigger_type" : "USER_REQUEST",
  "format" : "NATIVE",
  "status" : {
    "state" : "COMPLETED"
  },
  "drain_mode_enabled" : false,
  "location" : "obs://my-flink-bucket/aidatalake/workspace_57fd5733-xxxx-xxxx-85a9-c6e7f39b1891/flink/
endpoint_4702a179-xxxx-xxxx-81c3-6cd4d8090671/jobs/savepoint/019f609a-e90c-xxxx-xxxx-
a4ec9018e7f2/2026-01-15_10-30-00/savepoint-xxxxxx-4338cc24d240",
  "created_time" : 1768444200000,
  "completed_time" : 1768444800000,
  "create_user" : {
    "user_id" : "123",
    "user_name" : "testuser01"
  },
  "description" : "Pre-upgrade backup."
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter",
  "solution_msg" : "Please check the input parameters according to the documentation."
}
```

Status code: 401

```
{
  "error_code" : "AIDataLake.01011003",
```

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```
  "error_msg" : "Auth Token not exists in header",
  "solution_msg" : "Please check if auth Token is included in the request header."
}
```


Status code: 403


```
{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "Current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}
```


Status code: 404


```
{
  "error_code" : "AIDataLake.01051101",
  "error_msg" : "Flink savepoint 019f68a2-5e11-xxxx-xxxx-6e670d65ab03 does not exist",
  "solution_msg" : "Please check if Flink savepoint 019f68a2-5e11-xxxx-xxxx-6e670d65ab03 is entered correctly or has been deleted"
}
```


Status code: 500


```
{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
  "solution_msg" : "Contact operations for analysis."
}
```


Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Authentication failed.
403	Insufficient permissions.
404	The Flink savepoint does not exist.
500	Internal system error.

8.2.4 Deleting a Flink Job Savepoint

Function

This API is used to delete the metadata record of a specified savepoint without affecting the actual savepoint data in OBS. This API is synchronous.

Calling Method

For details, see **Calling APIs**.

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URI

DELETE /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/flink-savepoints/{savepoint_id}

Table 8-111 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
job_id	Yes	String	**Definition**: Flink job ID, used to uniquely identify a Flink job. For details, see **Listing Flink Jobs**. **Constraints**: N/A **Range**: UUIDv7 format, fixed at 36 characters. **Default Value**: N/A
savepoint_id	Yes	String	**Definition**: Unique savepoint identifier, used to uniquely identify a Flink snapshot. For details, see **Listing Flink Job Savepoints**. **Constraints**: N/A **Range**: UUIDv7 format, fixed at 36 characters. **Default Value**: N/A

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Request Parameters

Table 8-112 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token, used for API authentication and authorization. It can be obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. **Default Value**: N/A

Response Parameters

Status code: 204

None

Status code: 400

Table 8-113 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 401

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Table 8-114 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 403

Table 8-115 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 404

Table 8-116 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 500

Table 8-117 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Example Requests

Delete the specified savepoint metadata record.

```
DELETE /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/flink-savepoints/{savepoint_id}
```

Example Responses

Status code: 204

None

Status code: 400

```
{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter",
  "solution_msg" : "Please check the input parameters according to the documentation."
}
```

Status code: 401

```
{
  "error_code" : "AIDataLake.01011003",
```

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```
  "error_msg" : "Auth Token not exists in header",
  "solution_msg" : "Please check if auth Token is included in the request header."
}
```


Status code: 403


```
{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "Current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}
```


Status code: 404


```
{
  "error_code" : "AIDataLake.01051101",
  "error_msg" : "Flink savepoint 019f68a2-5e11-xxxx-xxxx-6e670d65ab03 does not exist",
  "solution_msg" : "Please check if Flink savepoint 019f68a2-5e11-xxxx-xxxx-6e670d65ab03 is entered
correctly or has been deleted"
}
```


Status code: 500


```
{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
  "solution_msg" : "Contact operations for analysis."
}
```


Status Codes

Status Code	Description
204	Request submitted.
400	Invalid request parameters.
401	Authentication failed.
403	Insufficient permissions.
404	The Flink job or savepoint does not exist.
500	Internal system error.

8.3 Flink Job Autoscaling Management

8.3.1 Hot-Updating Flink Job Autoscaling Configuration

Function

This API is used to hot-update the autoscaling configuration of a Flink job. This API is asynchronous. When the job is running, the configuration is automatically applied without restarting the job.

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Calling Method

For details, see **Calling APIs**.

URI

PUT /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/autoscaling-policy

Table 8-118 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
job_id	Yes	String	**Definition**: Flink job ID, used to uniquely identify a Flink job. For details, see **Listing Flink Jobs**. **Constraints**: N/A **Range**: UUIDv7 format, fixed at 36 characters. **Default Value**: N/A

Request Parameters

Table 8-119 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token, used for API authentication and authorization. It can be obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. **Default Value**: N/A

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Table 8-120 Request body parameters

Parameter	Mandatory	Type	Description
autoscaling_policy	Yes	**AutoscalingPolicy** object	**Definition**: Autoscaling configuration, used to hot-update the autoscaling configuration of a Flink job. When the job status is **STARTING** or **RUNNING**, the configuration takes effect immediately after being saved. For jobs in the **CREATED** state, the configuration takes effect upon startup. For jobs in terminal status (**CANCELLED**, **FAILED**, or **FINISHED**), the configuration is only saved. If the configuration fails to be delivered, automatic retry is not performed. You can call this API again to re-deliver the configuration. **Constraints**: N/A

Table 8-121 AutoscalingPolicy

Parameter	Mandatory	Type	Description
enabled	No	Boolean	**Definition**: Whether to enable autoscaling. **Constraints**: N/A **Range** • **true**: Enable autoscaling. • **false**: Disable autoscaling. **Default Value**: **false**
vertex_max_parallelism	No	Integer	**Definition:** Maximum operator parallelism. **Constraints**: N/A **Range**: 1 to 1,000. **Default Value**: **1000**
quota_cpu	No	Integer	**Definition**: CPU quota (unit: millicores). **Constraints**: N/A **Range**: 500 to 40,000,000. **Default Value**: **16000**

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Parameter	Mandatory	Type	Description
quota_memory	No	Long	**Definition**: Memory quota (unit: MB). **Constraints**: N/A **Range**: 2,048 to 81,920,000. **Default Value**: **65536**
custom_config	No	Map<String,String>	**Definition**: User-defined autoscaling configuration parameters in key-value pairs, passed as job.autoscaler.* parameters supported by the Flink Kubernetes Operator. Up to 50 parameters are supported, each value is 1 to 1,024 characters. **Constraints**: Full replacement mode is used. When this field is specified, the current input takes effect. When this field is not specified, the custom autoscaling configuration remains unchanged. Parameter names must start with **job.autoscaler.**. Configuration for structured field keys with the same names (job.autoscaler.enabled, job.autoscaler.vertex.max-parallelism, job.autoscaler.quota.cpu, job.autoscaler.quota.memory) does not take effect.

Response Parameters

Status code: 202

None

Status code: 400

Table 8-122 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 401

Table 8-123 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 403

Table 8-124 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

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Status code: 404

Table 8-125 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 500

Table 8-126 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Example Requests

Enable autoscaling.

```
PUT /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/autoscaling-policy

{
  "autoscaling_policy" : {
    "enabled" : true,
    "vertex_max_parallelism" : 1000
```

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```
  }
}
```

Example Responses

Status code: 202

None

Status code: 400

```
{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter",
  "solution_msg" : "Please check the input parameters according to the documentation."
}
```

Status code: 401

```
{
  "error_code" : "AIDataLake.01011003",
  "error_msg" : "Auth Token not exists in header",
  "solution_msg" : "Please check if auth Token is included in the request header."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "Current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.01051001",
  "error_msg" : "Flink job 019f609a-e90c-xxxx-xxxx-a4ec9018e7f2 does not exist",
  "solution_msg" : "Please check if Flink job 019f609a-e90c-xxxx-xxxx-a4ec9018e7f2 is entered correctly or has been deleted."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
  "solution_msg" : "Contact operations for analysis."
}
```

Status Codes

Status Code	Description
202	Request submitted successfully.
400	Invalid request parameters.
401	Authentication failed.
403	Insufficient permissions.
404	The Flink job does not exist.

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Status Code	Description
500	Internal system error.

8.3.2 Querying Flink Job Autoscaling Configuration

Function

This API is used to query the current autoscaling configuration of a Flink job. This API is synchronous.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/autoscaling-policy

Table 8-127 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
job_id	Yes	String	**Definition**: Flink job ID, used to uniquely identify a Flink job. For details, see **Listing Flink Jobs**. **Constraints**: N/A **Range**: UUIDv7 format, fixed at 36 characters. **Default Value**: N/A

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Request Parameters

Table 8-128 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token, used for API authentication and authorization. It can be obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. **Default Value**: N/A

Response Parameters

Status code: 200

Table 8-129 Response body parameters

Parameter	Type	Description
autoscaling_policy	**AutoscalingPolicyResponse** object	**Definition**: Autoscaling configuration.

Table 8-130 AutoscalingPolicyResponse

Parameter	Type	Description
enabled	Boolean	**Definition**: Whether to enable autoscaling. **Range** • **true**: Enable autoscaling. • **false**: Disable autoscaling.
vertex_max_parallelism	Integer	**Definition:** Maximum operator parallelism. **Range**: 1 to 1,000.
quota_cpu	Integer	**Definition**: CPU quota (unit: millicores). **Range**: 500 to 40,000,000.

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Parameter	Type	Description
quota_memory	Long	**Definition**: Memory quota (unit: MB). **Range**: 2,048 to 81,920,000.
custom_config	Map<String,String>	**Definition**: User-defined autoscaling configuration parameters in key-value pairs, passed as job.autoscaler.* parameters supported by the Flink Kubernetes Operator. Up to 50 parameters are supported, each value is 1 to 1,024 characters.
sync_status	String	**Definition**: Synchronization status of the autoscaling configuration. If the configuration fails to be delivered, the status is set to **FAILED**. You can re-invoke the update API to deliver the configuration again. **Range** • **PENDING**: Configuration saved but not yet delivered. • **SYNCED**: Configuration has been delivered successfully. • **FAILED**: Configuration delivery failed. Re-delivery is required.

Status code: 400

Table 8-131 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 401

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Table 8-132 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 403

Table 8-133 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 404

Table 8-134 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 500

Table 8-135 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Example Requests

Query the current autoscaling configuration of a job.

```
GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/autoscaling-policy
```

Example Responses

Status code: 200

```
{
  "autoscaling_policy" : {
    "enabled" : true,
    "vertex_max_parallelism" : 1000,
    "quota_cpu" : 4000,
    "quota_memory" : 8192,
    "custom_config" : {
      "job.autoscaler.target.utilization.max" : "0.8",
      "job.autoscaler.target.catch-up.duration" : "10 min"
    },
    "sync_status" : "SYNCED"
  }
}
```

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Status code: 400

```
{
  "error_code" : "AIDataLake.01011001",
  "error_msg" : "Invalid parameter",
  "solution_msg" : "Please check the input parameters according to the documentation."
}
```

Status code: 401

```
{
  "error_code" : "AIDataLake.01011003",
  "error_msg" : "Auth Token not exists in header",
  "solution_msg" : "Please check if auth Token is included in the request header."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.01011005",
  "error_msg" : "Current account has no permission",
  "solution_msg" : "Please connect administrators to add permission."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.01051001",
  "error_msg" : "Flink job 019f609a-e90c-xxxx-xxxx-a4ec9018e7f2 does not exist",
  "solution_msg" : "Please check if Flink job 019f609a-e90c-xxxx-xxxx-a4ec9018e7f2 is entered correctly or has been deleted."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.01010001",
  "error_msg" : "Internal system error",
  "solution_msg" : "Contact operations for analysis."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Authentication failed.
403	Insufficient permissions.
404	The Flink job does not exist.
500	Internal system error.

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8.3.3 Querying Flink Job Autoscaling History

Function

This API is used to query the autoscaling history of a Flink job, including detailed information about each scale-out and scale-in operation. This API is synchronous and supports paginated queries.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/autoscaling-histories

Table 8-136 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, used for resource isolation. For details about how to obtain the workspace ID, see **Obtaining a Workspace ID**. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
job_id	Yes	String	**Definition**: Flink job ID, used to uniquely identify a Flink job. For details, see **Listing Flink Jobs**. **Constraints**: N/A **Range**: UUIDv7 format, fixed at 36 characters. **Default Value**: N/A

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Table 8-137 Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	**Definition**: Index offset, used for pagination, starting from 0. **Constraints**: N/A **Range**: An integer from 0 to 100,000. **Default Value**: **0**
limit	No	Integer	**Definition**: Number of records to return, used for pagination. **Constraints**: N/A **Range**: An integer from 1 to 1,000. **Default Value**: **100**.

Request Parameters

Table 8-138 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token, used for API authentication and authorization. It can be obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. **Default Value**: N/A

Response Parameters

Status code: 200

Table 8-139 Response body parameters

Parameter	Type	Description
autoscaling_histories	Array of **AutoscalingHistory** objects	**Definition**: Autoscaling history record list.

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Parameter	Type	Description
count	Integer	**Definition**: Total number of autoscaling history records. **Range**: N/A

Table 8-140 AutoscalingHistory

Parameter	Type	Description
tuning_id	String	**Definition**: Unique tuning record ID. **Range**: UUID format, 36 characters.
job_id	String	**Definition**: Flink job ID. **Range**: UUIDv7 format, 36 characters.
action_type	String	**Definition**: Autoscaling action type. **Range** • **SCALE_OUT**: Scale-out (parallelism increases). • **SCALE_IN**: Scale-in (parallelism decreases).
tuning_message	String	**Definition**: Tuning message, an internationalized human-readable string. Programmatic parsing is not recommended. **Range**: N/A
old_resource_setting	**old_resource_setting** object	**Definition**: Resource configuration before the change. **Range**: N/A
new_resource_setting	**new_resource_setting** object	**Definition**: Resource configuration after the change. **Range**: N/A
trigger_time	String	**Definition**: Time when the tuning was triggered, in ISO 8601 UTC format. **Range**: N/A

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Table 8-141 old_resource_setting

Parameter	Type	Description
parallelism	Map<String,Integer>	**Definition:** Parallelism of each operator before the change, where key is the operator ID and value is the parallelism. **Range**: N/A

Table 8-142 new_resource_setting

Parameter	Type	Description
parallelism	Map<String,Integer>	**Definition:** Parallelism of each operator after the change, where key is the operator ID and value is the parallelism. **Range**: N/A

Status code: 400

Table 8-143 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 401

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Table 8-144 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 403

Table 8-145 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 404

Table 8-146 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Status code: 500

Table 8-147 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code, used to identify a specific error type. **Range**: 1 to 256 characters.
error_msg	String	**Definition**: Error message, used to explain the cause of an error. **Range**: 1 to 1,024 characters.
solution_msg	String	**Definition**: Resolution suggestion, used to provide a solution for the error. **Range**: 0 to 1,024 characters.

Example Requests

Query the autoscaling history of a job and return the last 10 records.

```
GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/autoscaling-histories?offset=0&limit=10
```

Example Responses

Status code: 200

```
{
  "autoscaling_histories" : [ {
    "tuning_id" : "a1b2c3d4-e5f6-xxxx-xxxx-ef1234567890",
    "job_id" : "01a038e4-4be8-xxxx-xxxx-c306ca6d2ade",
    "action_type" : "SCALE_OUT",
    "old_resource_setting" : {
      "parallelism" : {
        "source" : 2,
        "filter" : 2
      }
    },
    "new_resource_setting" : {
      "parallelism" : {
```

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```
      "source" : 4,
      "filter" : 4
    }
   },
   "tuning_message" : "Parallelism scaled out from 2 to 4 for dae3eb9dfe017c04da35c041f0e70581.",
   "trigger_time" : "2026-08-25T10:30:00.000+00:00"
 } ],
 "count" : 15
}
```


Status code: 400


```
{
 "error_code" : "AIDataLake.01011001",
 "error_msg" : "Invalid parameter",
 "solution_msg" : "Please check the input parameters according to the documentation."
}
```


Status code: 401


```
{
 "error_code" : "AIDataLake.01011003",
 "error_msg" : "Auth Token not exists in header",
 "solution_msg" : "Please check if auth Token is included in the request header."
}
```


Status code: 403


```
{
 "error_code" : "AIDataLake.01011005",
 "error_msg" : "Current account has no permission",
 "solution_msg" : "Please connect administrators to add permission."
}
```


Status code: 404


```
{
 "error_code" : "AIDataLake.01051001",
 "error_msg" : "Flink job 019f609a-e90c-xxxx-xxxx-a4ec9018e7f2 does not exist",
 "solution_msg" : "Please check if Flink job 019f609a-e90c-xxxx-xxxx-a4ec9018e7f2 is entered correctly or has been deleted."
}
```


Status code: 500


```
{
 "error_code" : "AIDataLake.01010001",
 "error_msg" : "Internal system error",
 "solution_msg" : "Contact operations for analysis."
}
```


Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Authentication failed.
403	Insufficient permissions.
404	The Flink job does not exist.

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Status Code	Description
500	Internal system error.

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9 User Agreement Management

9.1 Querying a System Agreement

Function

This API is used to list system-built tenant agreements. You can learn about the agreement name, version, and other information. This API is synchronous with no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/agreement/rules

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Request Parameters

Table 9-1 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 9-2 Response body parameters

Parameter	Type	Description
agreement_rules	Array of **V2AgreementRule** objects	**Definition**: System agreement list, where each element is a V2AgreementRule object containing the agreement name, display name, version, link, and other information.
total	Integer	**Definition**: Total number of system agreements. **Range**: 0 to 1000.

Table 9-3 V2AgreementRule

Parameter	Type	Description
agreement_name	String	**Definition**: Agreement name. **Range**: 1 to 128 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.

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Parameter	Type	Description
display_name	String	**Definition**: Agreement display name. **Range**: Up to 512 characters. Only letters, digits, and special characters are allowed.
version	String	**Definition**: Agreement version, for example, v1.0.0. **Range**: 1 to 128 characters. Only letters, digits, underscores (_), hyphens (-), and periods (.) are allowed.
url	String	**Definition**: Agreement URL. **Range**: Up to 2,000 characters. The value must comply with URL format specifications and consists of letters, digits, and URL-valid special characters.

Status code: 400

Table 9-4 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 9-5 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.

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Parameter	Type	Description
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 9-6 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 9-7 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

Table 9-8 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 9-9 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Query the system agreement list.

```
GET /v2/agreement/rules
```

Example Responses

Status code: 200

```
{
  "agreement_rules" : [ {
    "agreement_name" : "service_name",
    "display_name" : "service name",
    "version" : "v1",
    "url" : "https://service/v1"
  } ],
  "total" : 1
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
```

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```
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
408	Request timeout.
500	Internal server error.

9.2 Signing a Tenant Agreement

Function

This API is used by a user to sign a tenant agreement. This API is synchronous with no accompanying APIs or specific scenarios.

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Calling Method

For details, see **Calling APIs**.

URI

POST /v2/agreement

Request Parameters

Table 9-10 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Table 9-11 Request body parameters

Parameter	Mandatory	Type	Description
agreements	Yes	Array of **agreements** objects	**Definition**: Tenant agreement list. **Constraints**: Up to 10 agreements. **Range**: N/A **Default Value**: N/A

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Table 9-12 agreements

Parameter	Mandatory	Type	Description
agreement_name	Yes	String	**Definition**: Agreement name. **Constraints**: N/A **Range**: 1 to 128 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed. **Default Value**: N/A
version	Yes	String	**Definition**: Agreement version number. **Constraints**: N/A **Range**: 1 to 128 characters. Only letters, digits, underscores (_), hyphens (-), and periods (.) are allowed. **Default Value**: N/A

Response Parameters

Status code: 200

Table 9-13 Response body parameters

Parameter	Type	Description
is_success	Boolean	**Definition**: Indicates whether the request was successful. **Range** • **true**: The request was successful. • **false**: The request failed.
message	String	**Definition**: System prompt. **Range**: 0 to 4,096 characters.

Status code: 400

Table 9-14 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 9-15 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 9-16 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

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Table 9-17 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

Table 9-18 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 9-19 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Sign a tenant agreement through this API. The agreement name is **test_name**, and the agreement version is **v1**.

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```
POST /v2/agreement

{
  "agreements" : [ {
    "agreement_name" : "test_name",
    "version" : "v1"
  } ]
}
```

Example Responses

Status code: 200

```
{
  "is_success" : true,
  "message" : "Success"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

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Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
408	Request timeout.
500	Internal server error.

9.3 Checking Whether a User Has Signed an Agreement

Function

This API is used to query whether a user has signed an agreement. This API is synchronous with no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/agreement

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Request Parameters

Table 9-20 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 9-21 Response body parameters

Parameter	Type	Description
agreements	Array of **TenantV2Agreement** objects	**Definition**: Tenant agreement list.
total	Integer	**Definition**: Total number of agreements signed by the tenant. **Range**: 0 to 1,000.

Table 9-22 TenantV2Agreement

Parameter	Type	Description
agreement_name	String	**Definition**: Agreement name. **Range**: 1 to 128 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.

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Parameter	Type	Description
version	String	**Definition**: Agreement version number. **Range**: 1 to 128 characters. Only letters, digits, underscores (_), hyphens (-), and periods (.) are allowed.
create_time	String	**Definition**: Resource creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A

Status code: 400

Table 9-23 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 9-24 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

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Table 9-25 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 9-26 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

Table 9-27 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

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Table 9-28 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Query a signed tenant agreement through this API.

```
GET /v2/agreement
```

Example Responses

Status code: 200

```
{
  "agreements" : [ {
    "agreement_name" : "test_name",
    "version" : "v1",
    "create_time" : "2025-01-10T03:37:12.000+00:00"
  } ],
  "total" : 1
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
```

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```
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
408	Request timeout.
500	Internal server error.

9.4 Deleting a User Agreement

Function

This API is used to delete a user agreement. This API is synchronous with no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/agreement

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Request Parameters

Table 9-29 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 9-30 Response body parameters

Parameter	Type	Description
is_success	Boolean	**Definition**: Indicates whether the request was successful. **Range** • **true**: The request was successful. • **false**: The request failed.
message	String	**Definition**: System prompt. **Range**: 0 to 4,096 characters.

Status code: 400

Table 9-31 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 9-32 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 9-33 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

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Table 9-34 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

Table 9-35 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 9-36 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Delete a signed tenant agreement through this API.

```
DELETE /v2/agreement
```

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Example Responses

Status code: 200

```
{
  "is_success" : true,
  "message" : "Success"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.

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Status Code	Description
401	Unauthorized.
403	Access denied.
404	Resource not found.
408	Request timeout.
500	Internal server error.

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10 Agency Management

10.1 Creating a Service Agency

Function

This API is used to create an agency and grant specified permission policies to AI DataLake. You can selectively grant permissions by passing supported agency permission policies. This API is synchronous with no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/agencies

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Request Parameters

Table 10-1 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

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Table 10-2 Request body parameters

Parameter	Mandatory	Type	Description
policy_names	Yes	Array of strings	**Definition**: A list of permission policies that you want to grant to AI DataLake. Range: • **AI_DATALAKE_COMMON_POLICY**: Basic service permission policy. • **AI_DATALAKE_SELF_POLICY**: Access permission policy of AI DataLake, which is used for internal resource access of the service. • **AI_DATALAKE_LAKEFORMATION_POLICY**: Permission policy related to the LakeFormation function. • **AI_DATALAKE_LTS_POLICY**: Permission policy related to the logging function. • **AI_DATALAKE_SMN_POLICY**: Permission policy related to the notification function, which is used to forward system notifications to SMN. • **AI_DATALAKE_AOM_POLICY**: Permission policy related to the AOM function. • **AI_DATALAKE_SWR_POLICY**: Permission policy related to the image package registration function. • **AI_DATALAKE_VPCEP_POLICY**: Permission policy related to the network connectivity function. • **AI_DATALAKE_DNS_POLICY**: Permission policy related to DNS. • **AI_DATALAKE_OBS_POLICY**: Permission policy related to OBS. • **AI_DATALAKE_VPC_POLICY**: Permission policy related to VPC.

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Parameter	Mandatory	Type	Description
			• **AI_DATALAKE_DCS_POLICY**: Permission policy related to DCS. • **AI_DATALAKE_DEW_POLICY**: Permission policy related to DEW. **Constraints**: When creating an agency, the following four mandatory policies must be included: • **AI_DATALAKE_COMMON_POLICY**: Basic service permission policy. • **AI_DATALAKE_SELF_POLICY**: Access permission policy of AI DataLake, which is used for internal resource access of the service. • **AI_DATALAKE_LAKEFORMATION_POLICY**: Permission policy related to the LakeFormation function. • **AI_DATALAKE_LTS_POLICY**: Permission policy related to the logging function.

Response Parameters

Status code: 200

Table 10-3 Response body parameters

Parameter	Type	Description
agency_name	String	**Definition**: Agency name. **Range**: 1 to 128 characters. Only letters, digits, and underscores (_) are allowed.

Status code: 400

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Table 10-4 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 10-5 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 10-6 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

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Table 10-7 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

Table 10-8 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 10-9 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

A user creates an agency for AI DataLake.

```
POST /v2/agencies
```

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```
{
  "policy_names" : [ "AI_DATALAKE_COMMON_POLICY", "AI_DATALAKE_SELF_POLICY",
"AI_DATALAKE_LTS_POLICY", "AI_DATALAKE_OBS_POLICY", "AI_DATALAKE_LAKEFORMATION_POLICY" ]
}
```

Example Responses

Status code: 200

```
{
  "agency_name" : "ai_datalake_admin_trust"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

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Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
408	Request timeout.
500	Internal server error.

10.2 Deleting a Service Agency

Function

This API is used to revoke the authorization of the agency granted to AI DataLake. This API is synchronous with no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/agencies/{agency_name}

Table 10-10 Path Parameters

Parameter	Mandatory	Type	Description
agency_name	Yes	String	**Definition**: Agency name. **Constraints**: Fixed value: **ai_datalake_admin_trust**. **Range**: N/A **Default Value**: N/A

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Request Parameters

Table 10-11 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 10-12 Response body parameters

Parameter	Type	Description
is_success	Boolean	**Definition**: Indicates whether the request was successful. **Range** • **true**: The request was successful. • **false**: The request failed.
message	String	**Definition**: System prompt. **Range**: 0 to 4,096 characters.

Status code: 400

Table 10-13 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 10-14 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 10-15 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

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Table 10-16 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

Table 10-17 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 10-18 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

You no longer use this service and revoke the authorization of the agency to the service.

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```
DELETE /v2/agencies/ai_datalake_admin_trust
```

Example Responses

Status code: 200

```
{
  "is_success" : true,
  "message" : "Success"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.

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Status Code	Description
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
408	Request timeout.
500	Internal server error.

10.3 Querying a Service Agency

Function

This API is used to query the agency authorized to AI DataLake. You can call this API to query the agency authorized to AI DataLake and the specific permissions within the agency. This API is synchronous with no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/agencies/{agency_name}

Table 10-19 Path Parameters

Parameter	Mandatory	Type	Description
agency_name	Yes	String	**Definition**: Agency name. **Constraints**: Fixed value: **ai_datalake_admin_trust**. **Range**: N/A **Default Value**: N/A

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Request Parameters

Table 10-20 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 10-21 Response body parameters

Parameter	Type	Description
agency_name	String	**Definition**: Agency name. **Range**: The value is fixed at **ai_datalake_admin_trust**.
authorized	Boolean	**Definition**: Whether authorization is granted. If the user's service agency permissions include the required system agency permissions, **true** is returned. Otherwise, **false** is returned. **Range** • **true**: Authorized. • **false**: Not authorized.
create_time	String	**Definition**: Resource creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A

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Parameter	Type	Description
agency_policies	Array of **V2AgencyPolicy** objects	**Definition**: Agency policy list.

Table 10-22 V2AgencyPolicy

Parameter	Type	Description
policy_name	String	**Definition**: Name of the permission policy that specifies the permissions to be granted to AI DataLake. **Range** • **AI_DATALAKE_COMMON_POLICY**: Permission policy related to basic services. • **AI_DATALAKE_SELF_POLICY**: Permission policy for the service to access its own resources. • **AI_DATALAKE_SMN_POLICY**: Permission policy related to the notification function, which is used to forward system notifications to SMN. • **AI_DATALAKE_LAKEFORMATION_POLICY**: Permission policy related to the LakeFormation function. • **AI_DATALAKE_AOM_POLICY**: Permission policy related to the AOM function. • **AI_DATALAKE_SWR_POLICY**: Permission policy related to the image package registration function. • **AI_DATALAKE_LTS_POLICY**: Permission policy related to the logging function. • **AI_DATALAKE_VPCEP_POLICY**: Permission policy related to the network connectivity function. • **AI_DATALAKE_DNS_POLICY**: Permission policy related to DNS. • **AI_DATALAKE_OBS_POLICY**: Permission policy related to OBS. • **AI_DATALAKE_VPC_POLICY**: Permission policy related to VPC. • **AI_DATALAKE_DCS_POLICY**: Permission policy related to DCS. • **AI_DATALAKE_DEW_POLICY**: Permission policy related to DEW.

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Parameter	Type	Description
display_name	String	**Definition**: Permission policy name. **Range**: 0 to 128 characters. Only letters, digits, and special characters are allowed.
is_required	Boolean	**Definition**: Whether agency policy properties are required. **Range** • **true**: Required. • **false**: Optional.
is_enable	Boolean	**Definition**: Whether agency policy properties are enabled. If the policy exists and its **effect** is **Allow**, the value is **true**. **Range** • **true**: Enabled. • **false**: Disabled.
description	String	**Definition**: Policy description. **Range**: 0 to 128 characters. Only letters, digits, and special characters are allowed.
action_details	Array of **ActionDetail** objects	**Definition**: List of action details for the permission policy, describing the permission operations included in the policy.
create_time	String	**Definition**: Resource creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
changed_action_details	Array of **ChangedActionDetail** objects	**Definition**: List of action change details when the policy content is inconsistent with the expected content. Only actions that need to be added (present in the code but not in IAM) are displayed. An empty array is returned when the policy content is exactly the same or the policy is completely missing.

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Table 10-23 ActionDetail

Parameter	Type	Description
action	String	**Definition**: Permission operation content. **Range**: 0 to 128 characters. Only letters, digits, colons (:), and special characters are allowed.
action_description	String	**Definition**: Description of the permission operation, explaining the specific meaning of the operation. **Range**: 0 to 1,024 characters. Only letters, digits, and special characters are allowed.

Table 10-24 ChangedActionDetail

Parameter	Type	Description
action	String	**Definition**: Permission operation content. **Range**: 0 to 256 characters.
action_description	String	**Definition**: Description of the permission action. **Range**: N/A
change_type	String	**Definition**: Change type. **added** indicates a permission action to be added. **Range** • **added**: To be added.

Status code: 400

Table 10-25 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.

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Parameter	Type	Description
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 10-26 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 10-27 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 10-28 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

Table 10-29 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 10-30 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Query the authorization status for this service.

```
GET /v2/agencies/ai_datalake_admin_trust
```

Example Responses

Status code: 200

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```
{
 "agency_name" : "ai_datalake_admin_trust",
 "authorized" : true,
 "create_time" : "2026-04-09T08:10:33.000+00:00",
 "agency_policies" : [ {
  "policy_name" : "AI_DATALAKE_AOM_POLICY",
  "display_name" : "Application Operations Management (AOM)",
  "is_required" : false,
  "is_enable" : true,
  "description" : "Permissions required by AI DataLake to use AOM",
  "action_details" : [ {
   "action" : "aom:metric:put",
   "action_description" : "Report metrics"
  }, {
   "action" : "aom:alarm:put",
   "action_description" : "Report alarms"
  } ],
  "create_time" : "2026-03-23T08:24:57.602+00:00"
 }, {
  "policy_name" : "AI_DATALAKE_COMMON_POLICY",
  "display_name" : "Common Service",
  "is_required" : true,
  "is_enable" : true,
  "description" : "Permissions required by AI DataLake to use basic common services",
  "action_details" : [ {
   "action" : "iam:agencies:listAgencies",
   "action_description" : "List agencies"
  }, {
   "action" : "iam:roles:getRole",
   "action_description" : "Query roles"
  }, {
   "action" : "iam:roles:listRoles",
   "action_description" : "List roles"
  }, {
   "action" : "iam:permissions:listRolesForAgency",
   "action_description" : "Query agency role permissions"
  }, {
   "action" : "iam:users:getUser",
   "action_description" : "Query users"
  }, {
   "action" : "obs:bucket:ListAllMyBuckets",
   "action_description" : "List all buckets"
  }, {
   "action" : "obs:bucket:ListBucket",
   "action_description" : "List buckets"
  }, {
   "action" : "obs:object:GetObjectVersion",
   "action_description" : "Obtain object versions"
  }, {
   "action" : "obs:object:GetObject",
   "action_description" : "Obtain objects"
  } ],
  "create_time" : "2026-03-10T04:20:24.801+00:00"
 }, {
  "policy_name" : "AI_DATALAKE_DCS_POLICY",
  "display_name" : "Distributed Cache Service",
  "is_required" : false,
  "is_enable" : true,
  "description" : "Permissions required by AI DataLake to connect to Redis using Ray",
  "action_details" : [ {
   "action" : "dcs:instance:get",
   "action_description" : "Obtain DCS instance details"
  }, {
   "action" : "dcs:instance:getConfiguration",
   "action_description" : "Obtain DCS instance configurations"
  }, {
   "action" : "dcs:ssl:get",
   "action_description" : "Obtain SSL certificate information"
  }, {
```


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```
      "action" : "dcs:aclaccount:list",
      "action_description" : "List ACL accounts"
    }, {
      "action" : "dcs:instance:list",
      "action_description" : "List DCS instances"
    }, {
      "action" : "dcs:ssl:modify",
      "action_description" : "Modify instance SSL configuration"
    } ],
    "create_time" : "2026-04-14T07:17:52.333+00:00"
  }, {
    "policy_name" : "AI_DATALAKE_DEW_POLICY",
    "display_name" : "Data Encryption Workshop",
    "is_required" : false,
    "is_enable" : true,
    "description" : "Permissions required by AI DataLake to connect to DEW using Ray",
    "action_details" : [ {
      "action" : "csms:secret:get",
      "action_description" : "Obtain key information"
    }, {
      "action" : "csms:secretVersion:get",
      "action_description" : "Obtain key version information"
    }, {
      "action" : "kms:dek:crypto",
      "action_description" : "Encrypt a data key"
    }, {
      "action" : "kms:dek:decrypt",
      "action_description" : "Decrypt a data key"
    } ],
    "create_time" : "2026-04-15T07:07:44.120+00:00"
  }, {
    "policy_name" : "AI_DATALAKE_DNS_POLICY",
    "display_name" : "DNS Service",
    "is_required" : false,
    "is_enable" : true,
    "description" : "Permissions required by AI DataLake to use DNS",
    "action_details" : [ {
      "action" : "dns:zone:get",
      "action_description" : "Query a zone"
    }, {
      "action" : "dns:zone:create",
      "action_description" : "Create a zone"
    }, {
      "action" : "dns:zone:list",
      "action_description" : "List zones"
    }, {
      "action" : "dns:zone:delete",
      "action_description" : "Delete a zone"
    }, {
      "action" : "dns:recordset:update",
      "action_description" : "Update a record set"
    }, {
      "action" : "dns:recordset:create",
      "action_description" : "Create a record set"
    }, {
      "action" : "dns:recordset:delete",
      "action_description" : "Delete a record set"
    }, {
      "action" : "dns:recordset:list",
      "action_description" : "List record sets"
    } ],
    "create_time" : "2026-03-10T04:20:25.359+00:00"
  }, {
    "policy_name" : "AI_DATALAKE_LAKEFORMATION_POLICY",
    "display_name" : "LakeFormation Service",
    "is_required" : true,
    "is_enable" : true,
    "description" : "Permissions required by AI DataLake to use LakeFormation",
    "action_details" : [ {
```


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```
  "action" : "lakeformation:accessTenant:grant",
  "action_description" : "Grant access permission to a tenant"
}, {
  "action" : "lakeformation:access:delete",
  "action_description" : "Delete access permissions"
}, {
  "action" : "lakeformation:access:create",
  "action_description" : "Create access permissions"
}, {
  "action" : "lakeformation:access:describe",
  "action_description" : "Query access permissions"
}, {
  "action" : "lakeformation:table:describe",
  "action_description" : "Query table details"
}, {
  "action" : "lakeformation:credential:describe",
  "action_description" : "Query credential information"
}, {
  "action" : "lakeformation:policy:describe",
  "action_description" : "Query policy information"
}, {
  "action" : "lakeformation:table:drop",
  "action_description" : "Delete a table"
}, {
  "action" : "lakeformation:table:create",
  "action_description" : "Create a table"
}, {
  "action" : "lakeformation:policy:create",
  "action_description" : "Create a policy"
}, {
  "action" : "lakeformation:database:describe",
  "action_description" : "Query database details"
}, {
  "action" : "lakeformation:table:alter",
  "action_description" : "Modify table attributes"
}, {
  "action" : "lakeformation:function:describe",
  "action_description" : "Query function details."
}, {
  "action" : "lakeformation:catalog:describe",
  "action_description" : "Query catalog details."
}, {
  "action" : "lakeformation:database:create",
  "action_description" : "Create a database."
}, {
  "action" : "lakeformation:database:drop",
  "action_description" : "Delete a database."
}, {
  "action" : "lakeformation:function:create",
  "action_description" : "Create a function."
}, {
  "action" : "lakeformation:function:alter",
  "action_description" : "Modify function attributes."
}, {
  "action" : "lakeformation:function:drop",
  "action_description" : "Delete a function."
}, {
  "action" : "lakeformation:policy:drop",
  "action_description" : "Delete a policy."
}, {
  "action" : "lakeformation:role:describe",
  "action_description" : "Query role details."
}, {
  "action" : "lakeformation:user:describe",
  "action_description" : "Query user details."
}, {
  "action" : "lakeformation:transaction:operate",
  "action_description" : "Operate transactions."
} ],
```


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```
  "create_time" : "2026-03-10T04:20:24.582+00:00"
}, {
  "policy_name" : "AI_DATALAKE_LTS_POLICY",
  "display_name" : "Log Tank Service LTS",
  "is_required" : true,
  "is_enable" : true,
  "description" : "Permissions required by AI DataLake to use the log function",
  "action_details" : [ {
    "action" : "lts:groups:get",
    "action_description" : "Query a log group"
  }, {
    "action" : "lts:groups:list",
    "action_description" : "List log groups"
  }, {
    "action" : "lts:groups:create",
    "action_description" : "Create a log group"
  }, {
    "action" : "lts:topics:get",
    "action_description" : "Query a log stream"
  }, {
    "action" : "lts:topics:list",
    "action_description" : "List log streams"
  }, {
    "action" : "lts:topics:create",
    "action_description" : "Create a log stream"
  } ],
  "create_time" : "2026-03-10T04:20:24.243+00:00"
}, {
  "policy_name" : "AI_DATALAKE_OBS_POLICY",
  "display_name" : "Object Storage Service OBS",
  "is_required" : false,
  "is_enable" : true,
  "description" : "Permissions required by AI DataLake to use OBS",
  "action_details" : [ {
    "action" : "obs:bucket:CreateBucket",
    "action_description" : "Create a bucket"
  }, {
    "action" : "obs:bucket:DeleteBucket",
    "action_description" : "Delete a bucket"
  }, {
    "action" : "obs:bucket:PutLifecycleConfiguration",
    "action_description" : "Configure a lifecycle rule"
  }, {
    "action" : "obs:bucket:ListBucketMultipartUploads",
    "action_description" : "List multipart uploads"
  }, {
    "action" : "obs:bucket:HeadBucket",
    "action_description" : "Check whether a bucket exists"
  }, {
    "action" : "obs:bucket:ListAllMyBuckets",
    "action_description" : "List all buckets"
  }, {
    "action" : "obs:bucket:ListBucket",
    "action_description" : "List buckets"
  }, {
    "action" : "obs:bucket:PutEncryptionConfiguration",
    "action_description" : "Configure encryption"
  }, {
    "action" : "obs:bucket:PutBucketObjectLockConfiguration",
    "action_description" : "Configure object lock"
  }, {
    "action" : "obs:object:PutObject",
    "action_description" : "Upload an object"
  }, {
    "action" : "obs:object:GetObject",
    "action_description" : "Obtain objects"
  }, {
    "action" : "obs:object:DeleteObject",
    "action_description" : "Delete objects"
```


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```
  }, {
    "action" : "obs:bucket:GetLifecycleConfiguration",
    "action_description" : "Obtain the lifecycle configuration"
  } ],
  "create_time" : "2026-03-10T04:20:25.164+00:00"
}, {
  "policy_name" : "AI_DATALAKE_SELF_POLICY",
  "display_name" : "Self Service",
  "is_required" : true,
  "is_enable" : true,
  "description" : "Permissions required by the AI DataLake service to use its own service",
  "action_details" : [ {
    "action" : "DataArtsFabric:workspace:list",
    "action_description" : "List workspaces"
  }, {
    "action" : "DataArtsFabric:endpoint:show",
    "action_description" : "View endpoints"
  }, {
    "action" : "DataArtsFabric:workspace:showImage",
    "action_description" : "View images."
  }, {
    "action" : "DataArtsFabric:workspace:listRoute",
    "action_description" : "Query workspace routes"
  }, {
    "action" : "DataArtsFabric:endpoint:list",
    "action_description" : "List endpoints"
  }, {
    "action" : "DataArtsFabric:job:dropJobInstance",
    "action_description" : "Delete a job instance"
  }, {
    "action" : "DataArtsFabric:job:listJobInstance",
    "action_description" : "List job instances"
  }, {
    "action" : "DataArtsFabric:workspace:showSession",
    "action_description" : "View a session"
  }, {
    "action" : "DataArtsFabric:workspace:listMessagePolicy",
    "action_description" : "List message policies"
  }, {
    "action" : "DataArtsFabric:workspace:executeStatement",
    "action_description" : "Execute a statement"
  }, {
    "action" : "DataArtsFabric:workspace:showStatementResult",
    "action_description" : "View statement results"
  }, {
    "action" : "DataArtsFabric:workspace:deleteSqlSession",
    "action_description" : "Delete an SQL session"
  }, {
    "action" : "DataArtsFabric:workspace:cancelStatement",
    "action_description" : "Cancel a statement"
  }, {
    "action" : "DataArtsFabric:workspace:createSqlSession",
    "action_description" : "Create an SQL session"
  }, {
    "action" : "DataArtsFabric:workspace:listSessionStatementRecords",
    "action_description" : "List session statement records"
  }, {
    "action" : "DataArtsFabric:workspace:listSqlSessions",
    "action_description" : "List SQL sessions"
  }, {
    "action" : "DataArtsFabric:workspace:listStatementRecords",
    "action_description" : "List statement records"
  }, {
    "action" : "DataArtsFabric:workspace:showSqlSession",
    "action_description" : "View SQL sessions"
  }, {
    "action" : "DataArtsFabric:sparkJob:list",
    "action_description" : "List Spark jobs"
  }, {
```


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```
      "action" : "DataArtsFabric:sparkSql:list",
      "action_description" : "List Spark SQL jobs"
    }, {
      "action" : "DataArtsFabric:federation:show",
      "action_description" : "View Ray Federation information."
    }, {
      "action" : "DataArtsFabric:federation:list",
      "action_description" : "Lists the name of each Ray Federation."
    } ],
    "create_time" : "2026-03-10T04:20:24.426+00:00"
  }, {
    "policy_name" : "AI_DATALAKE_SWR_POLICY",
    "display_name" : "Container Image Service SWR",
    "is_required" : false,
    "is_enable" : true,
    "description" : "Permissions required by AI DataLake to use image package registration",
    "action_details" : [ {
      "action" : "swr:repo:listRepoDomains",
      "action_description" : "List image repository organizations"
    }, {
      "action" : "swr:repo:listRepoTags",
      "action_description" : "List image tags"
    }, {
      "action" : "swr:repo:createRepoDomain",
      "action_description" : "Create an image repository"
    }, {
      "action" : "swr:repo:getRepo",
      "action_description" : "Obtain an image repository"
    }, {
      "action" : "swr:system:createLoginSecret",
      "action_description" : "Generate a temporary login command"
    }, {
      "action" : "swr:repo:download",
      "action_description" : "Download an image"
    } ],
    "create_time" : "2026-03-10T04:20:25.786+00:00"
  }, {
    "policy_name" : "AI_DATALAKE_VPC_POLICY",
    "display_name" : "Virtual Private Cloud (VPC)",
    "is_required" : false,
    "is_enable" : true,
    "description" : "Permissions required by AI DataLake to use VPC",
    "action_details" : [ {
      "action" : "vpc:peerings:get",
      "action_description" : "Query details about a VPC peering connection"
    }, {
      "action" : "vpc:peerings:create",
      "action_description" : "Create a VPC peering connection"
    }, {
      "action" : "vpc:peerings:accept",
      "action_description" : "Accept a VPC peering connection"
    }, {
      "action" : "vpc:peerings:delete",
      "action_description" : "Delete a VPC peering connection"
    }, {
      "action" : "vpc:peerings:update",
      "action_description" : "Update a VPC peering connection"
    }, {
      "action" : "vpc:routes:delete",
      "action_description" : "Delete a VPC route"
    }, {
      "action" : "vpc:routes:create",
      "action_description" : "Create a VPC route"
    }, {
      "action" : "vpc:routes:list",
      "action_description" : "Obtain VPC routes"
    }, {
      "action" : "vpc:routeTables:get",
      "action_description" : "Obtain route table details"
```


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```
    }, {
      "action" : "vpc:routeTables:update",
      "action_description" : "Update a route table"
    }, {
      "action" : "vpc:routeTables:create",
      "action_description" : "Create a route table"
    }, {
      "action" : "vpc:routeTables:associate",
      "action_description" : "Associate with a route table"
    }, {
      "action" : "vpc:routeTables:delete",
      "action_description" : "Delete a route table"
    }, {
      "action" : "vpc:routeTables:list",
      "action_description" : "Query route tables"
    } ],
    "create_time" : "2026-03-23T02:59:32.908+00:00"
  }, {
    "policy_name" : "AI_DATALAKE_VPCEP_POLICY",
    "display_name" : "VPC Endpoint VPCEP",
    "is_required" : false,
    "is_enable" : true,
    "description" : "Permissions required by AI DataLake to connect to your network",
    "action_details" : [ {
      "action" : "vpcep:epservices:get",
      "action_description" : "Query a VPC endpoint service"
    }, {
      "action" : "vpcep:connections:update",
      "action_description" : "Update a connection"
    }, {
      "action" : "vpcep:permissions:update",
      "action_description" : "Update permissions"
    }, {
      "action" : "vpcep:permissions:list",
      "action_description" : "List permissions"
    }, {
      "action" : "vpcep:epserviceDesc:get",
      "action_description" : "Query the description of a VPC endpoint service"
    }, {
      "action" : "vpcep:endpoints:get",
      "action_description" : "Query a VPC endpoint"
    }, {
      "action" : "vpcep:endpoints:delete",
      "action_description" : "Delete a VPC endpoint"
    }, {
      "action" : "vpcep:endpoints:create",
      "action_description" : "Create a VPC endpoint"
    }, {
      "action" : "vpcep:connections:list",
      "action_description" : "List connections"
    }, {
      "action" : "vpcep:endpoints:list",
      "action_description" : "List VPC endpoints"
    } ],
    "create_time" : "2026-03-10T04:20:25.014+00:00"
  } ]
}
```


Status code: 400


```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```


Status code: 401


```
{
  "error_code" : "APIGW.0301",
```

```
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
408	Request timeout.
500	Internal server error.

10.4 Attaching a Policy

Function

This API is used to attach a policy to an agency. This API is synchronous with no accompanying APIs or specific scenarios.

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Calling Method

For details, see **Calling APIs**.

URI

POST /v2/agencies/{agency_name}/policies

Table 10-31 Path Parameters

Parameter	Mandatory	Type	Description
agency_name	Yes	String	**Definition**: Agency name. **Constraints**: Fixed value: **ai_datalake_admin_trust**. **Range**: N/A **Default Value**: N/A

Request Parameters

Table 10-32 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

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Table 10-33 Request body parameters

Parameter	Mandatory	Type	Description
policy_name	Yes	String	**Definition**: Name of the permission policy to be attached to the agency. Options: • **AI_DATALAKE_SMN_POLICY**: Permission policy related to the notification function, which is used to forward system notifications to SMN. • **AI_DATALAKE_AOM_POLICY**: Permission policy related to the AOM function. • **AI_DATALAKE_SWR_POLICY**: Permission policy related to the image package registration function. • **AI_DATALAKE_VPCEP_POLICY**: Permission policy related to the network connectivity function. • **AI_DATALAKE_DNS_POLICY**: Permission policy related to DNS. • **AI_DATALAKE_OBS_POLICY**: Permission policy related to OBS. • **AI_DATALAKE_VPC_POLICY**: Permission policy related to VPC. • **AI_DATALAKE_DCS_POLICY**: Permission policy related to DCS. • **AI_DATALAKE_DEW_POLICY**: Permission policy related to DEW. **Constraints**: Mandatory policies (**AI_DATALAKE_COMMON_POLICY**, **AI_DATALAKE_SELF_POLICY**, **AI_DATALAKE_LAKEFORMATION_POLICY**, and **AI_DATALAKE_LTS_POLICY**) cannot be attached.

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Parameter	Mandatory	Type	Description
			Range: N/A **Default Value**: N/A

Response Parameters

Status code: 200

Table 10-34 Response body parameters

Parameter	Type	Description
is_success	Boolean	**Definition**: Indicates whether the request was successful. **Range** • **true**: The request was successful. • **false**: The request failed.
message	String	**Definition**: System prompt. **Range**: 0 to 4,096 characters.

Status code: 400

Table 10-35 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 10-36 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 10-37 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 10-38 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

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Table 10-39 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 10-40 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Attach the **AI_DATALAKE_OBS_POLICY** policy to an agency.

```
POST /v2/agencies/ai_datalake_admin_trust/policies

{
  "policy_name" : "AI_DATALAKE_OBS_POLICY"
}
```

Example Responses

Status code: 200

```
{
  "is_success" : true,
  "message" : "Success"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

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Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
408	Request timeout.
500	Internal server error.

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10.5 Removing a Policy

Function

This API is used to remove a policy associated with an agency. This API is synchronous with no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/agencies/{agency_name}/policies/{policy_name}

Table 10-41 Path Parameters

Parameter	Mandatory	Type	Description
agency_name	Yes	String	**Definition**: Agency name. **Constraints**: Fixed value: **ai_datalake_admin_trust**. **Range**: N/A **Default Value**: N/A

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Parameter	Mandatory	Type	Description
policy_name	Yes	String	**Definition**: Permission policy name. **Constraints**: Mandatory policies cannot be removed. **Range** • **AI_DATALAKE_SMN_POLICY**: Permission policy related to the notification function, which is used to forward system notifications to SMN. • **AI_DATALAKE_AOM_POLICY**: Permission policy related to the AOM function. • **AI_DATALAKE_SWR_POLICY**: Permission policy related to the image package registration function. • **AI_DATALAKE_VPCEP_POLICY**: Permission policy related to the network connectivity function. • **AI_DATALAKE_DNS_POLICY**: Permission policy related to DNS. • **AI_DATALAKE_OBS_POLICY**: Permission policy related to OBS. • **AI_DATALAKE_VPC_POLICY**: Permission policy related to VPC. • **AI_DATALAKE_DCS_POLICY**: Permission policy related to DCS. • **AI_DATALAKE_DEW_POLICY**: Permission policy related to DEW. **Default Value**: N/A

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Request Parameters

Table 10-42 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 10-43 Response body parameters

Parameter	Type	Description
is_success	Boolean	**Definition**: Indicates whether the request was successful. **Range** • **true**: The request was successful. • **false**: The request failed.
message	String	**Definition**: System prompt. **Range**: 0 to 4,096 characters.

Status code: 400

Table 10-44 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 10-45 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 10-46 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

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Table 10-47 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

Table 10-48 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 10-49 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Remove the **AI_DATALAKE_OBS_POLICY** policy from an agency.

```
DELETE /v2/agencies/ai_datalake_admin_trust/policies/AI_DATALAKE_OBS_POLICY
```

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Example Responses

Status code: 200

```
{
  "is_success" : true,
  "message" : "Success"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.

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Status Code	Description
401	Unauthorized.
403	Access denied.
404	Resource not found.
408	Request timeout.
500	Internal server error.

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11 Workspace Management

11.1 Listing Workspaces

Function

This API is used to list workspaces. This API is synchronous.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces

Table 11-1 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	**Definition**: Enterprise project ID. For details about how to obtain the ID, see **Obtaining an Enterprise Project ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed. **Default Value**: **all_granted_eps**

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Parameter	Mandatory	Type	Description
offset	No	Integer	**Definition**: Page offset. **Constraints**: N/A **Range**: 0 to 10000. **Default Value**: **0**.
limit	No	Integer	**Definition**: Page size. **Constraints**: N/A **Range**: 1 to 1000. **Default Value**: **100**.
name	No	String	**Definition**: Workspace name. **Constraints**: N/A **Range**: 4 to 32 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed. **Default Value**: N/A
id	No	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
tags	No	Array of strings	**Definition**: Tag filter criteria, supporting multiple tags. **Range**: Format: key#value1,value2. Separate multiple values with commas (,). **Constraints**: Up to 10 tags.

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Request Parameters

Table 11-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 11-3 Response body parameters

Parameter	Type	Description
total	Integer	**Definition**: Total number of records. **Range**: N/A
workspaces	Array of **Workspace** objects	**Definition**: Workspace list, where each element is a Workspace object containing the workspace ID, name, description, creation time, and other information.

Table 11-4 Workspace

Parameter	Type	Description
id	String	**Definition**: Workspace ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
name	String	**Definition**: Workspace name. **Range**: 4 to 32 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.
description	String	**Definition**: User-entered description. **Range**: 0 to 255 characters. Exclamation marks (!), less-than signs (<), greater-than signs (>), equal signs (=), ampersands (&), double quotation marks ("), single quotation marks ('), at signs (@), number signs (#), percent signs (%), semicolons (;), left parentheses ((), right parentheses ()), vertical bars (|), asterisks (*), and backslashes () are not allowed.
create_time	String	**Definition**: Resource creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
create_domain_name	String	**Definition**: Creator account name. **Range**: 0 to 64 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.
create_user_name	String	**Definition**: Creator username. **Range**: 0 to 64 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.
metastore_id	String	**Definition**: Instance ID of the LakeFormation service. You can view it in the instance list on the LakeFormation console or obtain it by calling the LakeFormation API for listing instances. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
enterprise_project_id	String	**Definition**: Enterprise project ID. **Range**: 0 to 128 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.

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Parameter	Type	Description
tags	Array of ResourceTag objects	**Definition**: Resource tag of a workspace. Each element is a ResourceTag object containing the **key** (tag key) and **value** (tag value) fields.

Table 11-5 ResourceTag

Parameter	Type	Description
key	String	**Definition**: Resource tag key. **Range**: 1 to 128 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.
value	String	**Definition**: Resource tag value. **Range**: 0 to 255 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.

Status code: 400

Table 11-6 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

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Table 11-7 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 11-8 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 11-9 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

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Table 11-10 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 11-11 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

List workspaces.

```
GET /v2/workspaces
```

Example Responses

Status code: 200

```
{
  "total" : 3,
  "workspaces" : [ {
    "id" : "6ccab7b6-fe3a-41b6-a215-be37323bd254",
    "name" : "AIDataLake-Test-Workspace",
    "description" : "AI DataLake test workspace",
    "create_time" : "2026-06-23T12:51:21.000+00:00",
    "create_domain_name" : "test_domain",
    "create_user_name" : "test_user",
    "metastore_id" : "0ba8919e-f52c-437f-a590-9ad7ecdb5ed9",
    "enterprise_project_id" : "0",
    "tags" : [ {
      "key" : "environment",
      "value" : "test"
    }, {
      "key" : "creator",
```

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```
      "value" : "postman-script"
    }, {
      "key" : "purpose",
      "value" : "automation-testing"
    } ]
  }, {
    "id" : "61ff9cae-2e9e-46b5-9bcc-fc4e199c83be",
    "name" : "test-pool",
    "description" : "",
    "create_time" : "2026-06-22T08:27:32.000+00:00",
    "create_domain_name" : "test_domain",
    "create_user_name" : "test_user",
    "metastore_id" : "99543e6a-1df6-4bd9-8696-1a2f185f0968",
    "enterprise_project_id" : "0",
    "tags" : [ ]
  }, {
    "id" : "e89e105f-3aab-42c9-8fec-da1d2512a7a8",
    "name" : "AutoTest",
    "description" : "Used for automated billing tests",
    "create_time" : "2026-05-14T08:53:45.000+00:00",
    "create_domain_name" : "test_domain",
    "create_user_name" : "test_user",
    "metastore_id" : "99543e6a-1df6-4bd9-8696-1a2f185f0968",
    "enterprise_project_id" : "0",
    "tags" : [ ]
  } ]
}
```


Status code: 400


```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```


Status code: 401


```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```


Status code: 403


```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```


Status code: 404


```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```


Status code: 408


```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```


Status code: 500

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```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
408	Request timeout.
500	Internal server error.

11.2 Querying Details of a Workspace

Function

This API is used to query details of a workspace. This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}

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Table 11-12 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Request Parameters

Table 11-13 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 11-14 Response body parameters

Parameter	Type	Description
id	String	**Definition**: Workspace ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
name	String	**Definition**: Workspace name. **Range**: 4 to 32 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.
description	String	**Definition**: User-entered description. **Range**: 0 to 255 characters. Exclamation marks (!), less-than signs (<), greater-than signs (>), equal signs (=), ampersands (&), double quotation marks ("), single quotation marks ('), at signs (@), number signs (#), percent signs (%), semicolons (;), left parentheses ((), right parentheses ()), vertical bars (|), asterisks (*), and backslashes () are not allowed.
create_time	String	**Definition**: Resource creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
create_domain_name	String	**Definition**: Creator account name. **Range**: 0 to 64 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.
create_user_name	String	**Definition**: Creator username. **Range**: 0 to 64 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.
metastore_id	String	**Definition**: Instance ID of the LakeFormation service. You can view it in the instance list on the LakeFormation console or obtain it by calling the LakeFormation API for listing instances. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
enterprise_project_id	String	**Definition**: Enterprise project ID. **Range**: 0 to 128 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.

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Parameter	Type	Description
tags	Array of ResourceTag objects	**Definition**: Resource tag of a workspace. Each element is a ResourceTag object containing the **key** (tag key) and **value** (tag value) fields.

Table 11-15 ResourceTag

Parameter	Type	Description
key	String	**Definition**: Resource tag key. **Range**: 1 to 128 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.
value	String	**Definition**: Resource tag value. **Range**: 0 to 255 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.

Status code: 400

Table 11-16 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

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Table 11-17 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 11-18 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 11-19 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

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Table 11-20 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 11-21 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Query the details corresponding to a specified workspace ID.

```
GET /v2/workspaces/{workspace_id}
```

Example Responses

Status code: 200

```
{
  "id" : "61ff9cae-2e9e-46b5-9bcc-fc4e199c83be",
  "name" : "test-pool",
  "description" : "",
  "create_time" : "2026-06-22T08:27:32.000+00:00",
  "create_domain_name" : "test_domain",
  "create_user_name" : "test_user",
  "metastore_id" : "99543e6a-1df6-4bd9-8696-1a2f185f0968",
  "enterprise_project_id" : "0",
  "tags" : [ ]
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
```

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```
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
408	Request timeout.
500	Internal server error.

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11.3 Updating a Workspace

Function

This API is used to update a workspace. This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v2/workspaces/{workspace_id}

Table 11-22 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Request Parameters

Table 11-23 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Table 11-24 Request body parameters

Parameter	Mandatory	Type	Description
name	No	String	**Definition**: Workspace name. **Constraints**: N/A **Range**: 4 to 32 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
description	No	String	**Definition**: User-entered description. **Constraints**: N/A **Range**: 0 to 255 characters. Exclamation marks (!), less-than signs (<), greater-than signs (>), equal signs (=), ampersands (&), double quotation marks ("), single quotation marks ('), at signs (@), number signs (#), percent signs (%), semicolons (;), left parentheses ((), right parentheses ()), vertical bars (|), asterisks (*), and backslashes () are not allowed. **Default Value**: N/A
tags	No	Array of **V2ResourceTag** objects	**Definition**: Tag list. Each element is a V2ResourceTag object containing the **key** (tag key) and **value** (tag value) fields. **Constraints**: Up to 20 tags.

Table 11-25 V2ResourceTag

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: Resource tag key. **Constraints**: N/A **Range**: 1 to 128 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
value	No	String	**Definition**: Resource tag value. **Constraints**: N/A **Range**: 0 to 255 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed. **Default Value**: N/A

Response Parameters

Status code: 200

Table 11-26 Response body parameters

Parameter	Type	Description
id	String	**Definition**: Workspace ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: Workspace name. **Range**: 4 to 32 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.
description	String	**Definition**: User-entered description. **Range**: 0 to 255 characters. Exclamation marks (!), less-than signs (<), greater-than signs (>), equal signs (=), ampersands (&), double quotation marks ("), single quotation marks ('), at signs (@), number signs (#), percent signs (%), semicolons (;), left parentheses ((), right parentheses ()), vertical bars (|), asterisks (*), and backslashes () are not allowed.
create_time	String	**Definition**: Resource creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A

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Parameter	Type	Description
create_domain_name	String	**Definition**: Creator account name. **Range**: 0 to 64 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.
create_user_name	String	**Definition**: Creator username. **Range**: 0 to 64 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.
metastore_id	String	**Definition**: Instance ID of the LakeFormation service. You can view it in the instance list on the LakeFormation console or obtain it by calling the LakeFormation API for listing instances. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
enterprise_project_id	String	**Definition**: Enterprise project ID. **Range**: 0 to 128 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
tags	Array of ResourceTag objects	**Definition**: Resource tag of a workspace. Each element is a ResourceTag object containing the **key** (tag key) and **value** (tag value) fields.

Table 11-27 ResourceTag

Parameter	Type	Description
key	String	**Definition**: Resource tag key. **Range**: 1 to 128 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.
value	String	**Definition**: Resource tag value. **Range**: 0 to 255 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.

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Status code: 400

Table 11-28 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 11-29 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 11-30 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

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Table 11-31 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

Table 11-32 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 11-33 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Update the workspace name to **aidatalake**, update the description to **aidatalake-description**, and update the tags to **[{"key":"test","value":"ai"}]**.

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```
PUT /v2/workspaces/{workspace_id}

{
  "name" : "aidatalake",
  "description" : "aidatalake-description",
  "tags" : [ {
    "key" : "test",
    "value" : "ai"
  } ]
}
```

Example Responses

Status code: 200

```
{
  "id" : "61ff9cae-2e9e-46b5-9bcc-fc4e199c83be",
  "name" : "aidatalake",
  "description" : "aidatalake-description",
  "create_time" : "2026-06-22T08:27:32.000+00:00",
  "create_domain_name" : "test_domain",
  "create_user_name" : "test_user",
  "metastore_id" : "99543e6a-1df6-4bd9-8696-1a2f185f0968",
  "enterprise_project_id" : "0",
  "tags" : [ {
    "key" : "test",
    "value" : "ai"
  } ]
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

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Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
408	Request timeout.
500	Internal server error.

11.4 Creating a Workspace

Function

This API is used to create a workspace. This API has a name uniqueness check and does not support creating workspaces with duplicate names. A maximum of five workspaces can be created under the same account.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/workspaces

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Request Parameters

Table 11-34 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Table 11-35 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Workspace name. **Constraints**: N/A **Range**: 4 to 32 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
description	No	String	**Definition**: User-entered description. **Constraints**: N/A **Range**: 0 to 255 characters. Exclamation marks (!), less-than signs (<), greater-than signs (>), equal signs (=), ampersands (&), double quotation marks ("), single quotation marks ('), at signs (@), number signs (#), percent signs (%), semicolons (;), left parentheses ((), right parentheses ()), vertical bars (|), asterisks (*), and backslashes () are not allowed. **Default Value**: N/A
metastore_id	Yes	String	**Definition**: Instance ID of the LakeFormation service. You can view it in the instance list on the LakeFormation console or obtain it by calling the LakeFormation API for listing instances. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
enterprise_project_id	No	String	**Definition**: Enterprise project ID. For details about how to obtain the ID, see **Obtaining an Enterprise Project ID**. **Constraints**: N/A **Range**: 0 to 128 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed. **Default Value**: **0**

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Parameter	Mandatory	Type	Description
tags	No	Array of V2ResourceTag objects	**Definition**: Tag list. Each element is a V2ResourceTag object containing the **key** (tag key) and **value** (tag value) fields. **Constraints**: Up to 20 tags.

Table 11-36 V2ResourceTag

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: Resource tag key. **Constraints**: N/A **Range**: 1 to 128 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed. **Default Value**: N/A
value	No	String	**Definition**: Resource tag value. **Constraints**: N/A **Range**: 0 to 255 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed. **Default Value**: N/A

Response Parameters

Status code: 200

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Table 11-37 Response body parameters

Parameter	Type	Description
id	String	**Definition**: Workspace ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: Workspace name. **Range**: 4 to 32 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.
description	String	**Definition**: User-entered description. **Range**: 0 to 255 characters. Exclamation marks (!), less-than signs (<), greater-than signs (>), equal signs (=), ampersands (&), double quotation marks ("), single quotation marks ('), at signs (@), number signs (#), percent signs (%), semicolons (;), left parentheses ((), right parentheses ()), vertical bars (|), asterisks (*), and backslashes () are not allowed.
create_time	String	**Definition**: Resource creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
create_domain_name	String	**Definition**: Creator account name. **Range**: 0 to 64 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.
create_user_name	String	**Definition**: Creator username. **Range**: 0 to 64 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.
metastore_id	String	**Definition**: Instance ID of the LakeFormation service. You can view it in the instance list on the LakeFormation console or obtain it by calling the LakeFormation API for listing instances. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
enterprise_project_id	String	**Definition**: Enterprise project ID. **Range**: 0 to 128 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
tags	Array of ResourceTag objects	**Definition**: Resource tag of a workspace. Each element is a ResourceTag object containing the **key** (tag key) and **value** (tag value) fields.

Table 11-38 ResourceTag

Parameter	Type	Description
key	String	**Definition**: Resource tag key. **Range**: 1 to 128 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.
value	String	**Definition**: Resource tag value. **Range**: 0 to 255 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.

Status code: 400

Table 11-39 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

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Table 11-40 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 11-41 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 11-42 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

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Table 11-43 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 11-44 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Create a workspace.

```
POST /v2/workspaces

{
  "name" : "AIDataLake",
  "description" : "AIDataLake-description",
  "metastore_id" : "3dca9242-8434-44ea-b047-20ddc23884fb",
  "enterprise_project_id" : "01049549-82cd-4b2b-9733-ddb94350c125",
  "tags" : [ {
    "key" : "key1",
    "value" : "value1"
  }, {
    "key" : "key2",
    "value" : "value2"
  } ]
}
```

Example Responses

Status code: 200

```
{
  "id" : "61ff9cae-2e9e-46b5-9bcc-fc4e199c83be",
```

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```
  "name" : "AIDataLake",
  "description" : "AIDataLake-description",
  "create_time" : "2026-06-22T08:27:32.000+00:00",
  "create_domain_name" : "test_domain",
  "create_user_name" : "test_user",
  "metastore_id" : "3dca9242-8434-44ea-b047-20ddc23884fb",
  "enterprise_project_id" : "01049549-82cd-4b2b-9733-ddb94350c125",
  "tags" : [ {
    "key" : "key1",
    "value" : "value1"
  }, {
    "key" : "key2",
    "value" : "value2"
  } ]
}
```


Status code: 400


```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```


Status code: 401


```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```


Status code: 403


```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```


Status code: 404


```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```


Status code: 408


```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```


Status code: 500


```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```


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Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
408	Request timeout.
500	Internal server error.

11.5 Deleting a Workspace

Function

This API is used to delete a workspace. This API is synchronous with no accompanying APIs. If there are compute resources, endpoints, or applications under a workspace, deletion is not possible. You must first clear all resources created under the workspace before deletion.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/workspaces/{workspace_id}

Table 11-45 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Request Parameters

Table 11-46 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 11-47 Response body parameters

Parameter	Type	Description
workspace_id	String	**Definition**: Workspace ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

Status code: 400

Table 11-48 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

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Status code: 401

Table 11-49 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 11-50 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 11-51 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

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Table 11-52 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 11-53 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Delete the workspace corresponding to a specified workspace ID.

```
DELETE /v2/workspaces/{workspace_id}
```

Example Responses

Status code: 200

```
{
  "workspace_id" : "ac8111bf-3601-4905-8ddd-b41d3e636a4e"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
```

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```
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
408	Request timeout.
500	Internal server error.

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12 Compute Resource Management

12.1 Listing Compute Resources

Function

This API is used to list compute resources under a workspace. This API is synchronous.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/computes

Table 12-1 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Table 12-2 Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	**Definition**: Page offset. **Constraints**: N/A **Range**: 0 to 10000. **Default Value**: **0**.
limit	No	Integer	**Definition**: Page size. **Constraints**: N/A **Range**: 1 to 1,000. **Default Value**: **100**
name	No	String	**Definition**: Compute resource name, used for fuzzy search. **Constraints**: N/A **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a letter and end with a letter or digit. **Default Value**: N/A
compute_id	No	String	**Definition**: Compute resource ID. You can obtain the compute resource ID by calling the **Listing Compute Resources** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
tags	No	Array of strings	**Definition**: Tag filter criteria, supporting multiple tags. **Range**: Format: key#value1,value2. Separate multiple values with commas (,). **Constraints**: Up to 10 tags.

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Request Parameters

Table 12-3 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 12-4 Response body parameters

Parameter	Type	Description
total	Integer	**Definition**: Total number of records. **Range**: 0 to 10000.
computes	Array of **V2ComputeInfo** objects	**Definition**: Compute resource list, where each element is a V2ComputeInfo object containing the compute resource ID, name, billing mode, capacity configuration, and tags.

Table 12-5 V2ComputeInfo

Parameter	Type	Description
id	String	**Definition**: Compute resource ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
name	String	**Definition**: Compute resource name. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a letter and end with a letter or digit.
description	String	**Definition**: Resource description. **Range**: 0 to 512 characters.
charge_mode	String	**Definition**: Billing mode. **Range** • **postPaid**: Pay-per-use. • **prePaid**: Yearly/monthly.
capacity	Array of **ResourceCapacityItem** objects	**Definition**: Compute resource capacity configuration, consisting of an array of ResourceCapacityItem objects. Each object defines the resource type, resource quantity, resource specification, resource ID, and other information.
tags	Array of **Tag** objects	**Definition**: Tag list, which consists of an array of Tag objects. Each object defines a tag key and tag value.
prometheus_config	**PrometheusConfig** object	**Definition**: Prometheus monitoring configuration.
update_time	String	**Definition**: Resource update time, in UTC, in ISO 8601 format, for example, **2025-01-10T03:37:12.000+00:00**. **Range**: N/A
create_time	String	**Definition**: Resource creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A

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Parameter	Type	Description
status	String	**Definition**: Resource status. **Range** • **PREPARING**: Creating. • **RELEASING**: Releasing. • **RUNNING**: Running. • **SCALEIN**: Scaling in. • **SCALEOUT**: Scaling out. • **FREEZING**: Freezing. • **DELETED**: Deleted. • **DELETING**: Deleting. • **FAILED**: Failed. • **ORDER_PAYING**: Order payment in progress.
creator	**Creator** object	**Definition**: Resource owner information.
error	**Error** object	**Definition**: Text message content returned on failure, including the error code and error description.

Table 12-6 ResourceCapacityItem

Parameter	Type	Description
type	String	**Definition**: Resource type. **Range** • **CPU**: Central processing unit. • **GPU**: Graphics processing unit. • **NPU**: Neural processing unit.
capacity	Integer	**Definition**: Resource capacity quantity. The unit for CPU resources is cores, and the unit for GPU/NPU resources is instances. **Range**: 0 to 48,000
spec_code	String	**Definition**: Specification code. **Range**: 1 to 64 characters. Only letters, digits, hyphens (-), and periods (.) are allowed.

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Parameter	Type	Description
resource_id	String	**Definition**: Resource ID. **Range**: 1 to 64 characters. Only letters, digits, hyphens (-), and periods (.) are allowed.

Table 12-7 Tag

Parameter	Type	Description
key	String	**Definition**: Tag key. **Range**: 1 to 128 characters. Only letters, digits, underscores (_), hyphens (-), and periods (.) are allowed.
value	String	**Definition**: Tag value. **Range**: 0 to 255 characters.

Table 12-8 PrometheusConfig

Parameter	Type	Description
enable	Boolean	**Definition**: Whether to enable AOM integration. **Range** • **true**: AOM integration is enabled. • **false**: AOM integration is disabled.
aom_prometheus_id	String	**Definition**: AOM Prometheus instance ID. You can obtain it from the AOM management console or by calling the API for listing AOM Prometheus instances. **Range**: 0 to 256 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.

Table 12-9 Creator

Parameter	Type	Description
domain_name	String	**Definition**: Tenant name. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.

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Parameter	Type	Description
domain_id	String	**Definition**: Tenant ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.
user_name	String	**Definition**: Username. **Range**: 1 to 64 characters. Only letters, digits, and underscores (_) are allowed.
user_id	String	**Definition**: User ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.

Table 12-10 Error

Parameter	Type	Description
error_code	String	**Definition**: Error code on failure. **Range**: 0 to 36 characters. Only letters, digits, periods (.), and underscores (_) are allowed.
error_msg	String	**Definition**: Error message on failure. **Range**: 0 to 1,024 characters. Only letters, digits, and special characters are allowed.

Status code: 400

Table 12-11 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

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Table 12-12 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 12-13 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 12-14 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

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Table 12-15 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

List compute resources in a specified workspace.

```
GET /v2/workspaces/{workspace_id}/computes
```

Example Responses

Status code: 200


```
{
  "total" : 3,
  "computes" : [ {
    "id" : "03141229-84cd-4b1b-9733-dd124320c125",
    "name" : "compute-01",
    "description" : "description1",
    "charge_mode" : "postPaid",
    "capacity" : [ {
      "type" : "CPU",
      "capacity" : 1000,
      "spec_code" : "aidatalake.cpu.x86.general.1c4g",
      "resource_id" : "cpu.03141229-84cd-4b1b-9733-dd124320c125"
    } ],
    "tags" : [ {
      "key" : "test",
      "value" : "ai"
    } ],
    "update_time" : "2025-01-10T03:37:12.000+00:00",
    "create_time" : "2025-01-10T03:37:12.000+00:00",
    "status" : "RUNNING",
    "creator" : {
      "domain_name" : "domain_name",
      "domain_id" : "domain_id",
      "user_name" : "user_name",
      "user_id" : "user_id"
    },
    "error" : { }
  }, {
    "id" : "03141229-84cd-4b1b-9733-dd124320c126",
    "name" : "compute-02",
    "description" : "description2",
    "charge_mode" : "postPaid",
    "capacity" : [ {
      "type" : "CPU",
      "capacity" : 1000,
      "spec_code" : "aidatalake.cpu.x86.general.1c4g",
      "resource_id" : "cpu.03141229-84cd-4b1b-9733-dd124320c126"
    } ],
    "tags" : [ {
```


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```
      "key" : "test",
      "value" : "ai"
    } ],
    "update_time" : "2025-01-10T03:38:12.000+00:00",
    "create_time" : "2025-01-10T03:38:12.000+00:00",
    "status" : "RUNNING",
    "creator" : {
      "domain_name" : "domain_name",
      "domain_id" : "domain_id",
      "user_name" : "user_name",
      "user_id" : "user_id"
    },
    "error" : { }
  }, {
    "id" : "03141229-84cd-4b1b-9733-dd124320c127",
    "name" : "compute-03",
    "description" : "description3",
    "charge_mode" : "postPaid",
    "capacity" : [ {
      "type" : "CPU",
      "capacity" : 1000,
      "spec_code" : "aidatalake.cpu.x86.general.1c4g",
      "resource_id" : "cpu.03141229-84cd-4b1b-9733-dd124320c127"
    } ],
    "tags" : [ {
      "key" : "test",
      "value" : "ai"
    } ],
    "update_time" : "2025-01-10T03:39:12.000+00:00",
    "create_time" : "2025-01-10T03:39:12.000+00:00",
    "status" : "RUNNING",
    "creator" : {
      "domain_name" : "domain_name",
      "domain_id" : "domain_id",
      "user_name" : "user_name",
      "user_id" : "user_id"
    },
    "error" : { }
  } ]
}
```


Status code: 400


```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```


Status code: 401


```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```


Status code: 403


```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```


Status code: 404


```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
```


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```
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
500	Internal server error.

12.2 Viewing Details of a Compute Resource

Function

This API is used to view the details of a specified compute resource. This API is synchronous.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/computes/{compute_id}

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Table 12-16 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
compute_id	Yes	String	**Definition**: Compute resource ID. You can obtain the compute resource ID by calling the **Listing Compute Resources** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Request Parameters

Table 12-17 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

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Table 12-18 Response body parameters

Parameter	Type	Description
id	String	**Definition**: Compute resource ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: Compute resource name. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a letter and end with a letter or digit.
description	String	**Definition**: Resource description. **Range**: 0 to 512 characters.
charge_mode	String	**Definition**: Billing mode. **Range** • **postPaid**: Pay-per-use. • **prePaid**: Yearly/monthly.
capacity	Array of **ResourceCapacityItem** objects	**Definition**: Compute resource capacity configuration, consisting of an array of ResourceCapacityItem objects. Each object defines the resource type, resource quantity, resource specification, resource ID, and other information.
tags	Array of **Tag** objects	**Definition**: Tag list, which consists of an array of Tag objects. Each object defines a tag key and tag value.
prometheus_config	**PrometheusConfig** object	**Definition**: Prometheus monitoring configuration.
update_time	String	**Definition**: Resource update time, in UTC, in ISO 8601 format, for example, **2025-01-10T03:37:12.000+00:00**. **Range**: N/A
create_time	String	**Definition**: Resource creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A

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Parameter	Type	Description
status	String	**Definition**: Resource status. **Range** • **PREPARING**: Creating. • **RELEASING**: Releasing. • **RUNNING**: Running. • **SCALEIN**: Scaling in. • **SCALEOUT**: Scaling out. • **FREEZING**: Freezing. • **DELETED**: Deleted. • **DELETING**: Deleting. • **FAILED**: Failed. • **ORDER_PAYING**: Order payment in progress.
creator	**Creator** object	**Definition**: Resource owner information.
error	**Error** object	**Definition**: Text message content returned on failure, including the error code and error description.

Table 12-19 ResourceCapacityItem

Parameter	Type	Description
type	String	**Definition**: Resource type. **Range** • **CPU**: Central processing unit. • **GPU**: Graphics processing unit. • **NPU**: Neural processing unit.
capacity	Integer	**Definition**: Resource capacity quantity. The unit for CPU resources is cores, and the unit for GPU/NPU resources is instances. **Range**: 0 to 48,000
spec_code	String	**Definition**: Specification code. **Range**: 1 to 64 characters. Only letters, digits, hyphens (-), and periods (.) are allowed.

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Parameter	Type	Description
resource_id	String	**Definition**: Resource ID. **Range**: 1 to 64 characters. Only letters, digits, hyphens (-), and periods (.) are allowed.

Table 12-20 Tag

Parameter	Type	Description
key	String	**Definition**: Tag key. **Range**: 1 to 128 characters. Only letters, digits, underscores (_), hyphens (-), and periods (.) are allowed.
value	String	**Definition**: Tag value. **Range**: 0 to 255 characters.

Table 12-21 PrometheusConfig

Parameter	Type	Description
enable	Boolean	**Definition**: Whether to enable AOM integration. **Range** • **true**: AOM integration is enabled. • **false**: AOM integration is disabled.
aom_prometheus_id	String	**Definition**: AOM Prometheus instance ID. You can obtain it from the AOM management console or by calling the API for listing AOM Prometheus instances. **Range**: 0 to 256 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.

Table 12-22 Creator

Parameter	Type	Description
domain_name	String	**Definition**: Tenant name. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.

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Parameter	Type	Description
domain_id	String	**Definition**: Tenant ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.
user_name	String	**Definition**: Username. **Range**: 1 to 64 characters. Only letters, digits, and underscores (_) are allowed.
user_id	String	**Definition**: User ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.

Table 12-23 Error

Parameter	Type	Description
error_code	String	**Definition**: Error code on failure. **Range**: 0 to 36 characters. Only letters, digits, periods (.), and underscores (_) are allowed.
error_msg	String	**Definition**: Error message on failure. **Range**: 0 to 1,024 characters. Only letters, digits, and special characters are allowed.

Status code: 400

Table 12-24 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

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Table 12-25 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 12-26 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 12-27 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

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Table 12-28 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Query details of a compute resource. The compute resource ID is **03141229-84cd-4b1b-9733-dd124320c125**.

```
GET /v2/workspaces/{workspace_id}/computes/{compute_id}
```

Example Responses

Status code: 200

```
{
  "id" : "03141229-84cd-4b1b-9733-dd124320c125",
  "name" : "compute-01",
  "description" : "description",
  "charge_mode" : "postPaid",
  "capacity" : [ {
    "type" : "CPU",
    "capacity" : 1000,
    "spec_code" : "aidatalake.cpu.x86.general.1c4g",
    "resource_id" : "cpu.03141229-84cd-4b1b-9733-dd124320c125"
  } ],
  "tags" : [ {
    "key" : "test",
    "value" : "ai"
  } ],
  "prometheus_config" : {
    "enable" : true,
    "aom_prometheus_id" : "prometheus-001"
  },
  "update_time" : "2025-01-10T03:37:12.000+00:00",
  "create_time" : "2025-01-10T03:37:12.000+00:00",
  "status" : "RUNNING",
  "creator" : {
    "domain_name" : "domain_name",
    "domain_id" : "domain_id",
    "user_name" : "user_name",
    "user_id" : "user_id"
  }
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

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Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
500	Internal server error.

12.3 Creating a Compute Resource

Function

This API is used to create a compute resource. This API is asynchronous. You can obtain the operation result by calling the **Listing Compute Resource Operation Records** API.

Calling Method

For details, see **Calling APIs**.

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URI

POST /v2/workspaces/{workspace_id}/computes

Table 12-29 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Request Parameters

Table 12-30 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

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Table 12-31 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Compute resource name. **Constraints**: N/A **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a letter and end with a letter or digit. **Default Value**: N/A
description	No	String	**Definition**: Resource description. **Constraints**: N/A **Range**: 0 to 512 characters. The following characters are not allowed: exclamation mark (!), less-than sign (<), greater-than sign (>), equal sign (=), ampersand (&), double quotation marks ("), and single quotation mark ('). **Default Value**: N/A
charge_mode	No	String	**Definition**: Billing mode. **Constraints**: N/A **Range** • **postPaid**: Pay-per-use. • **prePaid**: Yearly/monthly. **Default Value**: **postPaid**.
capacity	Yes	Array of **CapacityItem** objects	**Definition**: Compute resource capacity configuration, consisting of an array of CapacityItem objects. Each object defines the resource type, resource quantity, resource specification, and other information. **Constraints**: 1 to 10 items.
tags	No	Array of **V2ResourceTag** objects	**Definition**: Tag list, which consists of an array of V2ResourceTag objects. Each object defines a tag key and tag value. **Constraints**: Up to 20 tags.

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Parameter	Mandatory	Type	Description
prometheus_config	No	PrometheusConfig object	**Definition**: Prometheus monitoring configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Table 12-32 CapacityItem

Parameter	Mandatory	Type	Description
type	Yes	String	**Definition**: Resource type. **Constraints**: N/A **Range** • **CPU**: Central processing unit. • **GPU**: Graphics processing unit. • **NPU**: Neural processing unit. **Default Value**: N/A
capacity	Yes	Integer	**Definition**: Number of resources. The unit for CPU resources is cores, and the unit for GPU/NPU resources is instances. **Constraints**: N/A **Range**: 0 to 48,000 **Default Value**: N/A
spec_code	Yes	String	**Definition**: Resource specification. **Constraints**: N/A **Range**: 1 to 64 characters. Only letters, digits, periods (.), and hyphens (-) are allowed. **Default Value**: N/A

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Table 12-33 V2ResourceTag

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: Resource tag key. **Constraints**: N/A **Range**: 1 to 128 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed. **Default Value**: N/A
value	No	String	**Definition**: Resource tag value. **Constraints**: N/A **Range**: 0 to 255 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed. **Default Value**: N/A

Table 12-34 PrometheusConfig

Parameter	Mandatory	Type	Description
enable	No	Boolean	**Definition**: Whether to enable AOM integration. **Constraints**: N/A **Range** • **true**: AOM integration is enabled. • **false**: AOM integration is disabled. **Default Value**: **false**

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Parameter	Mandatory	Type	Description
aom_prometheus_id	No	String	**Definition**: AOM Prometheus instance ID. You can obtain it from the AOM management console or by calling the API for listing AOM Prometheus instances. **Constraints**: N/A **Range**: 0 to 256 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed. **Default Value**: N/A

Response Parameters

Status code: 200

Table 12-35 Response body parameters

Parameter	Type	Description
id	String	**Definition**: Compute resource ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: Compute resource name. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a letter and end with a letter or digit.
description	String	**Definition**: Resource description. **Range**: 0 to 512 characters.
charge_mode	String	**Definition**: Billing mode. **Range** • **postPaid**: Pay-per-use. • **prePaid**: Yearly/monthly.
capacity	Array of **ResourceCapacityItem** objects	**Definition**: Compute resource capacity configuration, consisting of an array of ResourceCapacityItem objects. Each object defines the resource type, resource quantity, resource specification, resource ID, and other information.

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Parameter	Type	Description
tags	Array of **Tag** objects	**Definition**: Tag list, which consists of an array of Tag objects. Each object defines a tag key and tag value.
prometheus_config	**PrometheusConfig** object	**Definition**: Prometheus monitoring configuration.
update_time	String	**Definition**: Resource update time, in UTC, in ISO 8601 format, for example, **2025-01-10T03:37:12.000+00:00**. **Range**: N/A
create_time	String	**Definition**: Resource creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
status	String	**Definition**: Resource status. **Range** • **PREPARING**: Creating. • **RELEASING**: Releasing. • **RUNNING**: Running. • **SCALEIN**: Scaling in. • **SCALEOUT**: Scaling out. • **FREEZING**: Freezing. • **DELETED**: Deleted. • **DELETING**: Deleting. • **FAILED**: Failed. • **ORDER_PAYING**: Order payment in progress.
creator	**Creator** object	**Definition**: Resource owner information.
error	**Error** object	**Definition**: Text message content returned on failure, including the error code and error description.

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Table 12-36 ResourceCapacityItem

Parameter	Type	Description
type	String	**Definition**: Resource type. **Range** • **CPU**: Central processing unit. • **GPU**: Graphics processing unit. • **NPU**: Neural processing unit.
capacity	Integer	**Definition**: Resource capacity quantity. The unit for CPU resources is cores, and the unit for GPU/NPU resources is instances. **Range**: 0 to 48,000
spec_code	String	**Definition**: Specification code. **Range**: 1 to 64 characters. Only letters, digits, hyphens (-), and periods (.) are allowed.
resource_id	String	**Definition**: Resource ID. **Range**: 1 to 64 characters. Only letters, digits, hyphens (-), and periods (.) are allowed.

Table 12-37 Tag

Parameter	Type	Description
key	String	**Definition**: Tag key. **Range**: 1 to 128 characters. Only letters, digits, underscores (_), hyphens (-), and periods (.) are allowed.
value	String	**Definition**: Tag value. **Range**: 0 to 255 characters.

Table 12-38 PrometheusConfig

Parameter	Type	Description
enable	Boolean	**Definition**: Whether to enable AOM integration. **Range** • **true**: AOM integration is enabled. • **false**: AOM integration is disabled.

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Parameter	Type	Description
aom_prometheus_id	String	**Definition**: AOM Prometheus instance ID. You can obtain it from the AOM management console or by calling the API for listing AOM Prometheus instances. **Range**: 0 to 256 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.

Table 12-39 Creator

Parameter	Type	Description
domain_name	String	**Definition**: Tenant name. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.
domain_id	String	**Definition**: Tenant ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.
user_name	String	**Definition**: Username. **Range**: 1 to 64 characters. Only letters, digits, and underscores (_) are allowed.
user_id	String	**Definition**: User ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.

Table 12-40 Error

Parameter	Type	Description
error_code	String	**Definition**: Error code on failure. **Range**: 0 to 36 characters. Only letters, digits, periods (.), and underscores (_) are allowed.
error_msg	String	**Definition**: Error message on failure. **Range**: 0 to 1,024 characters. Only letters, digits, and special characters are allowed.

Status code: 400

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Table 12-41 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 12-42 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 12-43 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

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Table 12-44 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 12-45 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Create a compute resource. The name is **compute-01**, and the description is **Test compute resource**.

```
POST /v2/workspaces/{workspace_id}/computes

{
  "name" : "compute-01",
  "description" : "Test compute resource.",
  "capacity" : [ {
    "type" : "CPU",
    "capacity" : 8,
    "spec_code" : "aidatalake.cpu.x86.general.1c4g"
  } ],
  "charge_mode" : "postPaid",
  "tags" : [ {
    "key" : "test",
    "value" : "ai"
  } ]
}
```

Example Responses

Status code: 200

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```
{
  "id" : "03141229-84cd-4b1b-9733-dd124320c125",
  "name" : "compute-01",
  "description" : "Test compute resource",
  "charge_mode" : "postPaid",
  "capacity" : [ {
    "type" : "CPU",
    "capacity" : 8,
    "spec_code" : "aidatalake.cpu.x86.general.1c4g",
    "resource_id" : "03141229-84cd-4b1b-9733-dd124320c125"
  } ],
  "tags" : [ {
    "key" : "test",
    "value" : "ai"
  } ],
  "update_time" : "2026-05-14T04:22:18.000+00:00",
  "create_time" : "2026-05-14T04:22:18.000+00:00",
  "status" : "PREPARING",
  "creator" : {
    "domain_name" : "domain_name",
    "domain_id" : "domain_id",
    "user_name" : "user_name",
    "user_id" : "user_id"
  },
  "error" : { }
}
```


Status code: 400


```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```


Status code: 401


```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```


Status code: 403


```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```


Status code: 404


```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```


Status code: 500


```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```


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Status Codes

Status Code	Description
200	Request submitted.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
500	Internal server error.

12.4 Updating a Compute Resource

Function

This API is used to update the configuration of a specified compute resource. This API is asynchronous. You can obtain the operation result by calling the **Listing Compute Resource Operation Records** API.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v2/workspaces/{workspace_id}/computes/{compute_id}

Table 12-46 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
compute_id	Yes	String	**Definition**: Compute resource ID. You can obtain the compute resource ID by calling the **Listing Compute Resources** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Request Parameters

Table 12-47 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Table 12-48 Request body parameters

Parameter	Mandatory	Type	Description
name	No	String	**Definition**: Compute resource name. **Constraints**: N/A **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a letter and end with a letter or digit. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
description	No	String	**Definition**: Resource description. **Constraints**: N/A **Range**: 0 to 512 characters. The following characters are not allowed: exclamation mark (!), less-than sign (<), greater-than sign (>), equal sign (=), ampersand (&), double quotation marks ("), and single quotation mark ('). **Default Value**: N/A
capacity	No	Array of **CapacityItem** objects	**Definition**: Compute resource capacity configuration, consisting of an array of CapacityItem objects. Each object defines the resource type, resource quantity, resource specification, and other information. **Constraints**: N/A
tags	No	Array of **V2ResourceTag** objects	**Definition**: Tag list, which consists of an array of V2ResourceTag objects. Each object defines a tag key and tag value. **Constraints**: Up to 20 tags.
prometheus_config	No	**PrometheusConfig** object	**Definition**: Prometheus monitoring configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

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Table 12-49 CapacityItem

Parameter	Mandatory	Type	Description
type	Yes	String	**Definition**: Resource type. **Constraints**: N/A **Range** • **CPU**: Central processing unit. • **GPU**: Graphics processing unit. • **NPU**: Neural processing unit. **Default Value**: N/A
capacity	Yes	Integer	**Definition**: Number of resources. The unit for CPU resources is cores, and the unit for GPU/NPU resources is instances. **Constraints**: N/A **Range**: 0 to 48,000 **Default Value**: N/A
spec_code	Yes	String	**Definition**: Resource specification. **Constraints**: N/A **Range**: 1 to 64 characters. Only letters, digits, periods (.), and hyphens (-) are allowed. **Default Value**: N/A

Table 12-50 V2ResourceTag

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: Resource tag key. **Constraints**: N/A **Range**: 1 to 128 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
value	No	String	**Definition**: Resource tag value. **Constraints**: N/A **Range**: 0 to 255 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed. **Default Value**: N/A

Table 12-51 PrometheusConfig

Parameter	Mandatory	Type	Description
enable	No	Boolean	**Definition**: Whether to enable AOM integration. **Constraints**: N/A **Range** • **true**: AOM integration is enabled. • **false**: AOM integration is disabled. **Default Value**: **false**
aom_prometheus_id	No	String	**Definition**: AOM Prometheus instance ID. You can obtain it from the AOM management console or by calling the API for listing AOM Prometheus instances. **Constraints**: N/A **Range**: 0 to 256 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed. **Default Value**: N/A

Response Parameters

Status code: 200

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Table 12-52 Response body parameters

Parameter	Type	Description
id	String	**Definition**: Compute resource ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: Compute resource name. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a letter and end with a letter or digit.
description	String	**Definition**: Resource description. **Range**: 0 to 512 characters.
charge_mode	String	**Definition**: Billing mode. **Range** • **postPaid**: Pay-per-use. • **prePaid**: Yearly/monthly.
capacity	Array of **ResourceCapacityItem** objects	**Definition**: Compute resource capacity configuration, consisting of an array of ResourceCapacityItem objects. Each object defines the resource type, resource quantity, resource specification, resource ID, and other information.
tags	Array of **Tag** objects	**Definition**: Tag list, which consists of an array of Tag objects. Each object defines a tag key and tag value.
prometheus_config	**PrometheusConfig** object	**Definition**: Prometheus monitoring configuration.

Table 12-53 ResourceCapacityItem

Parameter	Type	Description
type	String	**Definition**: Resource type. **Range** • **CPU**: Central processing unit. • **GPU**: Graphics processing unit. • **NPU**: Neural processing unit.

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Parameter	Type	Description
capacity	Integer	**Definition**: Resource capacity quantity. The unit for CPU resources is cores, and the unit for GPU/NPU resources is instances. **Range**: 0 to 48,000
spec_code	String	**Definition**: Specification code. **Range**: 1 to 64 characters. Only letters, digits, hyphens (-), and periods (.) are allowed.
resource_id	String	**Definition**: Resource ID. **Range**: 1 to 64 characters. Only letters, digits, hyphens (-), and periods (.) are allowed.

Table 12-54 Tag

Parameter	Type	Description
key	String	**Definition**: Tag key. **Range**: 1 to 128 characters. Only letters, digits, underscores (_), hyphens (-), and periods (.) are allowed.
value	String	**Definition**: Tag value. **Range**: 0 to 255 characters.

Table 12-55 PrometheusConfig

Parameter	Type	Description
enable	Boolean	**Definition**: Whether to enable AOM integration. **Range** • **true**: AOM integration is enabled. • **false**: AOM integration is disabled.
aom_prometheus_id	String	**Definition**: AOM Prometheus instance ID. You can obtain it from the AOM management console or by calling the API for listing AOM Prometheus instances. **Range**: 0 to 256 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.

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Status code: 400

Table 12-56 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 12-57 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 12-58 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

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Status code: 404

Table 12-59 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 12-60 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Update the configuration of a specified compute resource. You can modify the name, description, capacity, tags, and more. In the URL, **workspace_id** is the workspace ID, and **compute_id** is the ID of the compute resource to be updated.

```
PUT /v2/workspaces/{workspace_id}/computes/{compute_id}

{
  "name" : "compute-01",
  "description" : "Test compute resource.",
  "capacity" : [ {
    "type" : "CPU",
    "capacity" : 64,
    "spec_code" : "aidatalake.cpu.x86.general.1c2g"
  } ],
  "tags" : [ {
    "key" : "test",
    "value" : "ai"
  } ]
}
```

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Example Responses

Status code: 200

```
{
  "id" : "03141229-84cd-4b1b-9733-dd124320c125",
  "name" : "compute-01",
  "description" : "Test compute resource.",
  "charge_mode" : "postPaid",
  "capacity" : [ {
    "type" : "CPU",
    "capacity" : 64,
    "spec_code" : "aidatalake.cpu.x86.general.1c2g",
    "resource_id" : "03141229-84cd-4b1b-9733-dd124320c125"
  } ],
  "tags" : [ {
    "key" : "test",
    "value" : "ai"
  } ],
  "prometheus_config" : {
    "enable" : true,
    "aom_prometheus_id" : "prometheus-001"
  }
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

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Status Codes

Status Code	Description
200	Request submitted.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
500	Internal server error.

12.5 Querying Resource Pool Monitoring Data

Function

This API is used to query the CPU, memory, NPU, and GPU monitoring data of a resource pool. This API is synchronous with no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/computes/metrics

Table 12-61 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Table 12-62 Query Parameters

Parameter	Mandatory	Type	Description
step	Yes	Integer	**Definition**: Query time step. **Constraints**: N/A **Range**: The unit is seconds. • **60**: One data point per minute. • **3600**: One data point per hour. • **86400**: One data point per day. **Default Value**: **60**
metric_name	Yes	String	**Definition**: Metric name. **Constraints**: N/A **Range** • **CPU**: Resource pool CPU usage. • **MEM**: Resource pool memory usage. • **NPU**: Resource pool NPU usage. • **GPU**: Resource pool GPU usage. **Default Value**: N/A
start_time	Yes	Long	**Definition**: Start time. **Constraints**: N/A **Range**: Timestamp in seconds. **Default Value**: N/A
end_time	Yes	Long	**Definition**: End time. **Constraints**: N/A **Range**: Timestamp in seconds. **Default Value**: N/A
compute_ids	Yes	String	**Definition**: Resource pool IDs, separated by commas (,). You can obtain them by calling the **Listing Compute Resources** API. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

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Request Parameters

Table 12-63 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 12-64 Response body parameters

Parameter	Type	Description
data	Array of **ComputeResourceMetrics** objects	**Definition**: Resource pool metric information.

Table 12-65 ComputeResourceMetrics

Parameter	Type	Description
collection_time	Integer	**Definition**: Data time, in seconds. **Range**: 0 to 2147483647.
values	Array of **ComputeMetric** objects	**Definition**: List of resource pool metric values. Each list element is a resource pool metric information object.

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Table 12-66 ComputeMetric

Parameter	Type	Description
compute_name	String	**Definition**: Resource pool name. **Range**: 1 to 63 characters.
compute_value	Number	**Definition**: Resource pool metric value. Unit: %. **Range**: 0 to 100.

Status code: 400

Table 12-67 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 12-68 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

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Table 12-69 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

Table 12-70 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 12-71 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Query the CPU metric data for resource pools **compute1** and **compute2** from **2026-06-16 13:50:00** to **2026-06-16 13:51:00** with a data step of 1 minute.

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```
GET /v2/workspaces/{workspace_id}/computes/metrics?compute_ids=02fa5e94-
f44c-4ceb-9480-0e1846e6262f,13b46a70-aca3-4935-
a04e-6f3dcc0a4203&start_time=1781589000&end_time=1781589060&step=60&metric_name=CPU
```

Example Responses

Status code: 200

```
{
  "data" : [ {
    "collection_time" : 1781589000,
    "values" : [ {
      "compute_name" : "compute1",
      "compute_value" : 0.5
    }, {
      "compute_name" : "compute2",
      "compute_value" : 0.5
    } ]
  } ]
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

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Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
408	Request timeout.
500	Internal server error.

12.6 Deleting a Compute Resource

Function

This API is used to delete a compute resource. You input the compute resource ID and the operation result is returned. This API is asynchronous. You can obtain the operation result by calling the **Listing Compute Resource Operation Records** API.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/workspaces/{workspace_id}/computes/{compute_id}

Table 12-72 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
compute_id	Yes	String	**Definition**: Compute resource ID. You can obtain the compute resource ID by calling the **Listing Compute Resources** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Request Parameters

Table 12-73 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 12-74 Response body parameters

Parameter	Type	Description
compute_id	String	**Definition**: Compute resource ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Status code: 400

Table 12-75 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 12-76 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 12-77 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

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Table 12-78 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 12-79 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Delete a compute resource. The workspace ID is **workspace_id**, and the compute resource ID is **compute_id**.

```
DELETE /v2/workspaces/{workspace_id}/computes/{compute_id}
```

Example Responses

Status code: 200

```
{
  "compute_id" : "03141229-84cd-4b1b-9733-dd124320c125"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
```

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```
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request submitted.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
500	Internal server error.

12.7 Listing Compute Resource Operation Records

Function

This API is used to list compute resource operation records. This API is synchronous.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/computes/versions

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Table 12-80 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Table 12-81 Query Parameters

Parameter	Mandatory	Type	Description
compute_id	No	String	**Definition**: Compute resource ID. You can obtain the compute resource ID by calling the **Listing Compute Resources** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
operation_result	No	String	**Definition**: Operation result. If not specified, operation records of all statuses are queried. **Constraints**: N/A **Range** • **SUCCESS**: The operation is successful. • **EXECUTING**: The operation is being executed. • **FAILED**: The operation failed. **Default Value**: N/A
offset	No	Integer	**Definition**: Page offset. **Constraints**: N/A **Range**: 0 to 10000. **Default Value**: **0**.

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Parameter	Mandatory	Type	Description
limit	No	Integer	**Definition**: Page size. **Constraints**: N/A **Range**: 1 to 1000. **Default Value**: **100**.

Request Parameters

Table 12-82 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 12-83 Response body parameters

Parameter	Type	Description
total	Integer	**Definition**: Total number of records. **Range**: 0 to 10000.
compute_versions	Array of **ShowV2ComputeVersionResponse-Body** objects	**Definition**: Compute resource operation history list, where each element is a compute resource operation history details object.

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Table 12-84 ShowV2ComputeVersionResponseBody

Parameter	Type	Description
id	String	**Definition**: ID of a compute resource record. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
compute_id	String	**Definition**: Compute resource ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: Compute resource name. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a letter and end with a letter or digit.
capacity	**CapacityVersion** object	**Definition**: Compute resource capacity configuration.
create_time	String	**Definition**: Resource creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
update_time	String	**Definition**: Resource update time, in UTC, in ISO 8601 format, for example, **2025-01-10T03:37:12.000+00:00**. **Range**: N/A
creator	**Creator** object	**Definition**: Resource owner information.
error	**Error** object	**Definition**: Text message content returned on failure, including the error code and error description.
operation	**Operation** object	**Definition**: Compute resource operation records, including the operation type and operation result.

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Table 12-85 CapacityVersion

Parameter	Type	Description
type	String	**Definition**: Resource type. **Range** • **CPU**: Central processing unit. • **GPU**: Graphics processing unit. • **NPU**: Neural processing unit.
capacity	Integer	**Definition**: Number of resources. The unit for CPU resources is cores, and the unit for GPU/NPU resources is instances. **Range**: 0 to 48,000
target_capacity	Integer	**Definition**: Number of target resources. The unit for CPU resources is cores, and the unit for GPU/NPU resources is instances. **Range**: 0 to 48,000
spec_code	String	**Definition**: Resource specification. **Range**: 1 to 64 characters. Only letters, digits, periods (.), and hyphens (-) are allowed.

Table 12-86 Creator

Parameter	Type	Description
domain_name	String	**Definition**: Tenant name. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.
domain_id	String	**Definition**: Tenant ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.
user_name	String	**Definition**: Username. **Range**: 1 to 64 characters. Only letters, digits, and underscores (_) are allowed.
user_id	String	**Definition**: User ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.

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Table 12-87 Error

Parameter	Type	Description
error_code	String	**Definition**: Error code on failure. **Range**: 0 to 36 characters. Only letters, digits, periods (.), and underscores (_) are allowed.
error_msg	String	**Definition**: Error message on failure. **Range**: 0 to 1,024 characters. Only letters, digits, and special characters are allowed.

Table 12-88 Operation

Parameter	Type	Description
operation_type	String	**Definition**: Operation type. **Range** • **CREATE**: Create. • **SCALEIN**: Scale in. • **SCALEOUT**: Scale out. • **DELETE**: Delete.
operation_result	String	**Definition**: Operation result. **Range** • **EXECUTING**: The operation is being executed. • **SUCCESS**: The operation is successful. • **FAILED**: The operation failed.

Status code: 400

Table 12-89 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.

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Parameter	Type	Description
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 12-90 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 12-91 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 12-92 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 12-93 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Query the compute resource operation records in a specified workspace. The workspace ID is **8b1bfea1-24ce-48b4-9083-2a41b2847157**.

```
GET /v2/workspaces/{workspace_id}/computes/versions
```

Example Responses

Status code: 200

```
{
  "total" : 1,
  "compute_versions" : [ {
    "id" : "46d2d3aa-b28d-43da-b5b8-d7c1e9f46b9b",
    "compute_id" : "61eb192a-74de-416b-88d0-66eab567fec7",
    "name" : "compute-id-test",
    "capacity" : {
      "type" : "CPU",
      "capacity" : 1000,
      "target_capacity" : 500,
      "spec_code" : "aidatalake.cpu.x86.general.1c4g"
    },
    "create_time" : "2025-01-10T03:37:12.000+00:00",
    "update_time" : "2025-01-10T03:37:12.000+00:00",
    "creator" : {
      "domain_name" : "test_domain",
      "domain_id" : "test610f3a0a4c2c80c50bea7ddf18c1",
      "user_name" : "test39176",
      "user_id" : "test523342614e3e984e8b854a401ac4"
    },
    "error" : {
```

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```
    "error_code" : "00011030",
    "error_msg" : "task execute failed."
   },
   "operation" : {
    "operation_type" : "SCALEIN",
    "operation_result" : "FAILED"
   }
  } ]
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
500	Internal server error.

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13 Endpoint Management

13.1 Listing All Endpoints

Function

This API is used to list all endpoints of a tenant. This API is synchronous.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/endpoints

Table 13-1 Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	**Definition**: Page offset. **Constraints**: N/A **Range**: 0 to 10000. **Default Value**: **0**.
limit	No	Integer	**Definition**: Page size. **Constraints**: N/A **Range**: 1 to 1000. **Default Value**: **100**.

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Parameter	Mandatory	Type	Description
name	No	String	**Definition**: Endpoint name, used for exact search. **Constraints**: N/A **Range**: 1 to 63 characters. Must comply with RFC 1035. Only lowercase letters, digits, and hyphens (-) are allowed. The value must start with a lowercase letter and end with a lowercase letter or digit. **Default Value**: N/A
engine_types	No	Array of strings	**Definition**: List of endpoint engine types. **Range** • **AuraJob**: AuraJob engine. • **SparkSql**: SparkSQL engine. • **SparkJob**: SparkJob engine. • **FlinkJob**: FlinkJob engine. • **AuraJobV2**: AuraJobV2 engine. • **RayCluster**: RayCluster engine. • **RayJob**: RayJob engine. **Constraints**: N/A
tags	No	Array of strings	**Definition**: Tag filter criteria, supporting multiple tags. **Range**: Format: key#value1,value2. Separate multiple values with commas (,). **Constraints**: Up to 10 tags.

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Request Parameters

Table 13-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 13-3 Response body parameters

Parameter	Type	Description
total	Integer	**Definition**: Total number of records. **Range**: N/A
endpoints	Array of **V2EndpointSpaceInfo** objects	**Definition**: Endpoint list.

Table 13-4 V2EndpointSpaceInfo

Parameter	Type	Description
id	String	**Definition**: Endpoint ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
name	String	**Definition**: Endpoint name. **Range**: 1 to 63 characters. Must comply with RFC 1035. Only lowercase letters, digits, and hyphens (-) are allowed. The value must start with a lowercase letter and end with a lowercase letter or digit.
display_name	String	**Definition**: Endpoint display name. **Range**: 1 to 63 characters. Only letters, digits, and hyphens (-) are allowed.
description	String	**Definition**: Resource description. **Range**: 0 to 1,000 characters. Only letters, digits, and special characters are allowed.
status	String	**Definition**: Endpoint status. **Range** • **CREATING**: Creating. • **RUNNING**: Running. • **CREATE_FAILED**: Creation failed. • **DELETING**: Deleting. • **DELETED**: Deleted. • **UPDATING**: Updating. • **UPDATE_FAILED**: Update failed. • **DELETE_FAILED**: Deletion failed. • **FROZEN**: Frozen. • **TRIAL_ENDED**: Trial ended. • **ON_DEMAND_FROZEN**: On-demand frozen.
engine	One of: • **SparkJob** object • **SparkSql** object • **RayCluster** object • **RayJob** object • **FlinkJob** object • **AuraJob** object • **AuraJobV2** object	**Definition**: Engine configuration.

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Parameter	Type	Description
capacity	Array of **V2EndpointCapacityItem** objects	**Definition**: Compute resource capacity configuration.
resource_type	String	**Definition**: Resource usage mode. **Range** • **RESERVED**: Reserved. • **ONDEMAND**: On-demand. • **HYBRID**: Hybrid.
create_time	String	**Definition**: Resource creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
update_time	String	**Definition**: Resource update time, in UTC, in ISO 8601 format, for example, **2025-01-10T03:37:12.000+00:00**. **Range**: N/A
compute_id	String	**Definition**: Compute resource ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
credential	**CredentialConfig** object	**Definition**: Endpoint-level user agency name, used for authentication of endpoint storage and other configurations, and as the default agency for job execution.
creator	**Creator** object	**Definition**: Resource owner information.
tags	Array of **ResourceTag** objects	**Definition**: Resource tag list.
error	**Error** object	**Definition**: Text message content returned on failure, including the error code and error description.
workspace	**BriefWorkspace** object	**Definition**: Workspace summary information.

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Table 13-5 SparkJob

Parameter	Type	Description
type	String	**Definition**: Engine type. **Range**: **SparkJob**
spark_config	Map<String,String>	**Definition**: Spark parameter configuration, where the key in the Map is the Spark configuration parameter name and the value is the corresponding parameter value.
scheduling_config	**SparkScheduling-Config** object	**Definition**: SparkJob scheduling configuration.
staging_config	**StagingConfig** object	**Definition**: Temporary storage configuration.
image	**V2ImageBriefInfo** object	**Definition**: Image configuration.

Table 13-6 SparkSchedulingConfig

Parameter	Type	Description
max_concurrent_jobs	Integer	**Definition**: Maximum number of concurrent jobs for the endpoint. **Range**: 1 to 1000.
scheduling_policy	String	**Definition**: Job scheduling policy. Options include **RANDOM** and **FIFO**. **Range** • **RANDOM**: Random. • **FIFO**: First in, first out.
fifo_tolerance_seconds	Integer	**Definition**: First in first out (FIFO) allowed concurrency time, in seconds. **Range**: 0 to 3600.

Table 13-7 SparkSql

Parameter	Type	Description
spark_config	Map<String,String>	**Definition**: Spark parameter configuration, where the key in the Map is the Spark configuration parameter name and the value is the corresponding parameter value.

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Parameter	Type	Description
staging_config	**StagingConfig** object	**Definition**: Temporary storage configuration.
cluster_config	**SparkClusterConfig** object	**Definition**: Cluster configuration.
max_endpoint_concurrent_queries	Integer	**Definition**: Maximum number of concurrent SQL queries for the endpoint. **Range**: 1 to 1,000.
image	**V2ImageBriefInfo** object	**Definition**: Image configuration.

Table 13-8 SparkClusterConfig

Parameter	Type	Description
aging_time	Integer	**Definition**: Cluster aging time, in hours. **Range**: 1 to 12.
auto_stop_config	**AutoStopConfig** object	**Definition**: Cluster auto-stop configuration. **Range**: N/A
driver_resource_spec	**SparkDriverResourceSpec** object	**Definition**: Driver resource configuration for the Spark SQL endpoint. **Range**: N/A
executor_resource_spec	**SparkExecutorResourceSpec** object	**Definition**: Executor resource configuration for the Spark SQL endpoint. **Range**: N/A
min_clusters	Integer	**Definition**: Minimum number of clusters. **Range**: 0 to 20
max_clusters	Integer	**Definition**: Maximum number of clusters. **Range**: 2 to 20
max_cluster_concurrent_queries	Integer	**Definition**: Maximum number of concurrent SQL statements in a cluster. **Range**: 1 to 30

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Table 13-9 AutoStopConfig

Parameter	Type	Description
enabled	Boolean	**Definition**: Specifies whether to automatically stop the cluster. **Range** • **true**: Enable automatic cluster stop. • **false**: Disable automatic cluster stop.
idle_timeout_minutes	Integer	**Definition**: Idle timeout period for automatically stopping the cluster, in minutes. **Range**: 5 to 360

Table 13-10 SparkDriverResourceSpec

Parameter	Type	Description
cpu	Integer	**Definition**: Spark driver CPU, in millicores. **Range**: 1,000 to 48,000.
memory	Integer	**Definition**: Spark Driver memory size, in MB. 1 GB = 1,024 MB. **Range**: 1,024 to 393,216.

Table 13-11 SparkExecutorResourceSpec

Parameter	Type	Description
cpu	Integer	**Definition**: Spark executor CPU, in millicores. **Range**: 1,000 to 48,000.
memory	Integer	**Definition**: Spark Executor memory size, in MB. 1 GB = 1,024 MB. **Range**: 1,024 to 393,216.
min_executor_numbers	Integer	**Definition**: Minimum number of Spark Executors. **Range**: 1 to 2147483647
max_executor_numbers	Integer	**Definition**: Maximum number of Spark Executors. **Range**: 1 to 1000

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Table 13-12 RayCluster

Parameter	Type	Description
cluster_config	**RayClusterConfigV3** object	**Definition**: Ray cluster specification.
redis_config	**RedisConfig** object	**Definition**: Redis cluster configuration. Currently, only DCS is supported.
storages_config	**StoragesConfig** object	**Definition**: Storage resource configuration.
image	**V2ImageBriefInfo** object	**Definition**: Image configuration.
ray_federation_id	String	**Definition**: Ray Federation endpoint ID. **Range**: N/A
history_server_config	**HistoryServerConfig** object	**Definition**: History Server configuration.

Table 13-13 RayClusterConfigV3

Parameter	Type	Description
head_group_spec	**HeadGroupSpecV3** object	**Definition**: Head group configuration. **Range**: N/A
worker_group_specs	Array of **WorkerGroupSpecV3** objects	**Definition**: Worker group configuration.

Table 13-14 HeadGroupSpecV3

Parameter	Type	Description
resource	**ResourceSpecV3** object	**Definition**: Resource specification. **Range**: N/A

Table 13-15 WorkerGroupSpecV3

Parameter	Type	Description
name	String	**Definition**: Worker group name. **Range**: 0 to 128 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
min_replicas	Integer	**Definition**: Minimum number of replicas. **Range**: 0 to 10000.
max_replicas	Integer	**Definition**: Maximum number of replicas. **Range**: 1 to 10000.
resource	**ResourceSpecV3** object	**Definition**: Resource specification. **Range**: N/A

Table 13-16 ResourceSpecV3

Parameter	Type	Description
spec_code	String	**Definition**: Specification code. **Range**: N/A
cpu	Integer	**Definition**: Number of CPU cores, in millicores. **Range**: 0 to 1000000.
memory	Integer	**Definition**: Memory size, in MB. **Range**: 0 to 10000000.
npu	Double	**Definition**: Number of Huawei Cloud AI processing units (PUs). **Range**: 0 to 100.
gpu	Double	**Definition**: Number of GPUs. **Range**: 0 to 100.

Table 13-17 RedisConfig

Parameter	Type	Description
username	String	**Definition**: Account name. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.

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Parameter	Type	Description
dew_secret_name	String	**Definition**: DEW secret name. It stores the password of the DCS account. Format: The secret key is **password**, and the value is the actual password. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.
ssl_enable	Boolean	**Definition**: Whether to enable SSL. **Range** • **true**: Enable SSL. • **false**: Disable SSL.
dcs_id	String	**Definition**: DCS instance ID. You can view it on the instance details page of the DCS console or obtain it by calling the API for listing DCS instances. **Range**: 4 to 1,024 characters. Only letters, digits, and hyphens (-) are allowed.
vpcep_service_id	String	**Definition**: VPC Endpoint server ID, used to connect to the customer-side network. You can view it on the VPC Endpoint console or obtain it by calling the API for listing VPC Endpoint services. This parameter is mandatory when GCS high availability (HA) is enabled, and is used to connect to the customer-side DCS over VPC Endpoint. **Range**: N/A

Table 13-18 RayJob

Parameter	Type	Description
type	String	**Definition**: Engine type. **Range**: **RayJob**
history_server_config	**HistoryServerConfig** object	**Definition**: History Server configuration.

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Table 13-19 HistoryServerConfig

Parameter	Type	Description
enabled	Boolean	**Definition**: Status of the history server function. Set this parameter to **true** to enable the function. **Range** • **true**: Enabled. • **false**: Disabled.
obs	**ObsConfig** object	**Definition**: OBS storage configuration. OBS bucket for storing diagnostic data collected by the History Server collector (for example, data collected by Flow Insight). This service uses the specified agency to read from and write to the bucket. This parameter is mandatory when **enabled** is set to **true**. **Range**: N/A
flow_insight_enabled	Boolean	**Definition**: Flow Insight is a diagnosis and observability feature. It collects metrics, logs, and workflow execution data from the Ray cluster and transmits the data to the configured OBS storage through the History Server collector. This feature is available only when the **enabled** parameter is set to **true**. **Range** • **true**: Enabled. • **false**: Disabled.

Table 13-20 FlinkJob

Parameter	Type	Description
type	String	**Definition**: Engine type. **Range**: **FlinkJob**
flink_config	Map<String,String>	**Definition**: Flink parameter configuration, where the key in the Map is the Flink configuration parameter name and the value is the corresponding parameter value.
staging_config	**StagingConfig** object	**Definition**: Temporary storage configuration.

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Parameter	Type	Description
image	**V2ImageBriefInfo** object	**Definition**: Image configuration.

Table 13-21 StagingConfig

Parameter	Type	Description
obs	**ObsConfig** object	**Definition**: OBS storage configuration. **Range**: N/A

Table 13-22 ObsConfig

Parameter	Type	Description
bucket_name	String	**Definition**: OBS bucket name. The bucket must be a parallel file system. **Range**: 3 to 63 characters. Only lowercase letters, digits, hyphens (-), and periods (.) are allowed.
agency_name	String	**Definition**: Agency name. The cloud service will use this agency to perform operations on the OBS bucket. **Range**: N/A

Table 13-23 V2ImageBriefInfo

Parameter	Type	Description
id	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
version_id	String	**Definition**: Image version ID. You can obtain the image version ID by calling the **Listing Custom Image Versions** API. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Table 13-24 AuraJob

Parameter	Type	Description
storages_config	**StoragesConfig** object	**Definition**: Storage resource configuration.

Table 13-25 AuraJobV2

Parameter	Type	Description
type	String	**Definition**: Engine type. **Range**: **AuraJobV2**
expand_cpu_resource	Boolean	**Definition**: When enabled, jobs from the general-purpose computing workgroup can use idle CPU and memory resources from the intelligent computing workgroup. This operation may cause intelligent computing jobs to queue due to insufficient resources. **Range** • **true**: Enable general-purpose computing workgroup jobs to use idle CPU and memory resources from the intelligent computing workgroup. • **false**: Disable general-purpose computing workgroup jobs from using idle CPU and memory resources from the intelligent computing workgroup.
worker_group_config	Array of **WorkerGroupConfig** objects	**Definition**: Workgroup supplementary configuration, corresponding to external capacity.
staging_config	**AuraV2StagingConfig** object	**Definition**: OBS storage configuration for the computing result set.
storages_config	**StoragesConfig** object	**Definition**: Storage resource configuration.

Table 13-26 WorkerGroupConfig

Parameter	Type	Description
name	String	**Definition**: Workgroup name. **Range**: 1 to 63 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
spec_code	String	**Definition**: Node specifications. **Range**: 1 to 64 characters. Only letters, digits, periods (.), and hyphens (-) are allowed.
cpu	Integer	**Definition**: General-purpose computing CPU size, in millicores. **Range**: 0 to 2,147,483,647.
memory	Integer	**Definition**: General-purpose memory size, in MB. **Range**: 0 to 2,147,483,647.
gpu	Double	**Definition**: Number of GPUs. **Range**: 0 to 2,147,483,647.
npu	Double	**Definition**: Number of NPUs. **Range**: 0 to 2,147,483,647.
image	**ImageVersionInfo** object	**Definition**: Image. **Range**: N/A

Table 13-27 ImageVersionInfo

Parameter	Type	Description
id	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Range**: N/A
version_id	String	**Definition**: Custom image version ID. It can be obtained by calling the **Listing Custom Image Versions** API. **Range**: N/A

Table 13-28 AuraV2StagingConfig

Parameter	Type	Description
obs	**AuraV2ObsConfig** object	**Definition**: OBS storage configuration. **Range**: N/A

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Table 13-29 AuraV2ObsConfig

Parameter	Type	Description
bucket_name	String	**Definition**: OBS bucket name. **Range**: 3 to 63 characters. Only lowercase letters, digits, hyphens (-), and periods (.) are allowed.

Table 13-30 StoragesConfig

Parameter	Type	Description
files	Array of **FileStorageConfig** objects	**Definition**: File storage configuration.

Table 13-31 FileStorageConfig

Parameter	Type	Description
storage_id	String	**Definition**: Storage resource ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
storage_name	String	**Definition**: Storage name, corresponding to the PVC name. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed.
storage_path	String	**Definition**: Path on the storage. **Range**: 1 to 1,024 characters. Only letters, digits, slashes (/), and special characters are allowed.
mount_path	String	**Definition**: Path to mount to a container. **Range**: 1 to 1,024 characters. Only letters, digits, slashes (/), and special characters are allowed.

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Table 13-32 V2EndpointCapacityItem

Parameter	Type	Description
type	String	**Definition**: Resource type. **Range** • **CPU**: Central processing unit. • **GPU**: Graphics processing unit. • **NPU**: Neural processing unit.
maximum_capacity	Integer	**Definition**: Number of resources. The unit for CPU resources is cores, and the unit for GPU/NPU resources is instances. **Range**: 1 to 10000.
minimum_capacity	Integer	**Definition**: Minimum number of resources. The unit for CPU resources is cores, and the unit for GPU/NPU resources is instances. **Range**: 0 to 10000, which is less than or equal to the value of **maximum_capacity**.
spec_code	String	**Definition**: Resource specification. You can obtain it by querying the specification list. **Range**: 1 to 64 characters. Only letters, digits, periods (.), and hyphens (-) are allowed.
use_ondemand_resource	Boolean	**Definition**: Whether to use elastic resources for capacity. **Range** • **true**: Use elastic resources. • **false**: Do not use elastic resources.

Table 13-33 CredentialConfig

Parameter	Type	Description
agency_name	String	**Definition**: Endpoint-level user agency name, used for authentication of endpoint storage and other configurations, and as the default agency for job execution. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.

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Table 13-34 Creator

Parameter	Type	Description
domain_name	String	**Definition**: Tenant name. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.
domain_id	String	**Definition**: Tenant ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.
user_name	String	**Definition**: Username. **Range**: 1 to 64 characters. Only letters, digits, and underscores (_) are allowed.
user_id	String	**Definition**: User ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.

Table 13-35 ResourceTag

Parameter	Type	Description
key	String	**Definition**: Resource tag key. **Range**: 1 to 128 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.
value	String	**Definition**: Resource tag value. **Range**: 0 to 255 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.

Table 13-36 Error

Parameter	Type	Description
error_code	String	**Definition**: Error code on failure. **Range**: 0 to 36 characters. Only letters, digits, periods (.), and underscores (_) are allowed.

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Parameter	Type	Description
error_msg	String	**Definition**: Error message on failure. **Range**: 0 to 1,024 characters. Only letters, digits, and special characters are allowed.

Table 13-37 BriefWorkspace

Parameter	Type	Description
id	String	**Definition**: Workspace ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: Workspace name. **Range**: 4 to 32 characters. Only letters, digits, underscores (_), and hyphens (-) are allowed.

Status code: 400

Table 13-38 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 13-39 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 13-40 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 13-41 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

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Table 13-42 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Query all endpoints, filter by name, and return endpoint summary information.

```
GET /v2/endpoints?name=endpoint-01
```

Example Responses

Status code: 200

- All endpoints are queried. The endpoint information of the AuraJob type is returned.

```
{
  "total" : 1,
  "endpoints" : [ {
    "id" : "0b5633ba2b904511ad514346f4d23d4b",
    "name" : "endpoint-01",
    "display_name" : "endpoint-01",
    "description" : "Test endpoint.",
    "status" : "RUNNING",
    "engine" : {
      "type" : "AuraJob"
    },
    "resource_type" : "RESERVED",
    "compute_id" : "00030bf1-4466-4c84-b32d-f601b136f03b",
    "capacity" : [ {
      "type" : "CPU",
      "maximum_capacity" : 10,
      "minimum_capacity" : 0,
      "use_ondemand_resource" : false,
      "spec_code" : "aidatalake.cpu.x86.general.1c4g"
    } ],
    "create_time" : "2025-01-10T03:37:12.000+00:00",
    "update_time" : "2025-01-10T03:37:12.000+00:00",
    "creator" : {
      "domain_name" : "test",
      "domain_id" : "0676610f3a0a4c2c80c50bea7ddf18c1",
      "user_id" : "019e19fb78887b57b2f6c4174cd5a002",
      "user_name" : "developer"
    },
    "workspace" : {
      "id" : "00315974-7ee8-4900-8034-2e8f9ee61520",
      "name" : "test1"
    },
    "tags" : [ {
      "key" : "test",
      "value" : "ai"
    } ],
```

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```
  "credential" : {
    "agency_name" : "aidatalake_spark"
  },
  "error" : { }
 } ]
}
```

- All endpoints are queried. The endpoint information of the SparkSql and SparkJob types is returned.

```
{
 "total" : 2,
 "endpoints" : [ {
  "id" : "1a2b3c4d5e6f7890abcdef1234567890",
  "name" : "spark-sql-test",
  "display_name" : "spark-sql-test",
  "description" : "SparkSql test endpoint",
  "status" : "RUNNING",
  "engine" : {
   "type" : "SparkSql",
   "spark_config" : { },
   "cluster_config" : {
    "aging_time" : 6,
    "auto_stop_config" : {
     "enabled" : true,
     "idle_timeout_minutes" : 10
    },
    "driver_resource_spec" : {
     "cpu" : 4000,
     "memory" : 32768
    },
    "executor_resource_spec" : {
     "cpu" : 4000,
     "memory" : 32768,
     "min_executor_numbers" : 2,
     "max_executor_numbers" : 8
    },
    "min_clusters" : 0,
    "max_clusters" : 6,
    "max_cluster_concurrent_queries" : 16
   },
   "max_endpoint_concurrent_queries" : 300
  },
  "resource_type" : "RESERVED",
  "compute_id" : "0150a336-dda9-431c-9ef1-af02ec424a5e",
  "capacity" : [ {
   "type" : "CPU",
   "maximum_capacity" : 1000,
   "minimum_capacity" : 0,
   "use_ondemand_resource" : false,
   "spec_code" : "aidatalake.cpu.x86.general.1c2g"
  } ],
  "create_time" : "2025-01-10T03:37:12.000+00:00",
  "update_time" : "2025-01-10T03:37:12.000+00:00",
  "creator" : {
   "domain_name" : "test",
   "domain_id" : "0676610f3a0a4c2c80c50bea7ddf18c1",
   "user_id" : "019e19fb78887b57b2f6c4174cd5a002",
   "user_name" : "developer"
  },
  "workspace" : {
   "id" : "00315974-7ee8-4900-8034-2e8f9ee61520",
   "name" : "test1"
  },
  "tags" : [ {
   "key" : "test",
   "value" : "ai"
  } ],
  "credential" : {
   "agency_name" : "aidatalake_spark"
```

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```
    },
    "error" : { }
  }, {
    "id" : "2b3c4d5e6f7890abcdef1234567890ab",
    "name" : "spark-job-test",
    "display_name" : "spark-job-test",
    "description" : "SparkJob test endpoint",
    "status" : "RUNNING",
    "engine" : {
      "type" : "SparkJob",
      "spark_config" : { },
      "scheduling_config" : {
        "max_concurrent_jobs" : 300,
        "scheduling_policy" : "RANDOM"
      }
    },
    "resource_type" : "RESERVED",
    "compute_id" : "0150a336-dda9-431c-9ef1-af02ec424a5e",
    "capacity" : [ {
      "type" : "CPU",
      "maximum_capacity" : 1000,
      "minimum_capacity" : 0,
      "use_ondemand_resource" : false,
      "spec_code" : "aidatalake.cpu.x86.general.1c2g"
    } ],
    "create_time" : "2025-01-10T03:37:12.000+00:00",
    "update_time" : "2025-01-10T03:37:12.000+00:00",
    "creator" : {
      "domain_name" : "test",
      "domain_id" : "0676610f3a0a4c2c80c50bea7ddf18c1",
      "user_id" : "019e19fb78887b57b2f6c4174cd5a002",
      "user_name" : "developer"
    },
    "workspace" : {
      "id" : "00315974-7ee8-4900-8034-2e8f9ee61520",
      "name" : "test1"
    },
    "tags" : [ {
      "key" : "test",
      "value" : "ai"
    } ],
    "credential" : {
      "agency_name" : "aidatalake_spark"
    },
    "error" : { }
  } ]
}
```


Status code: 400


```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```


Status code: 401


```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```


Status code: 403


```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```


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Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
500	Internal server error.

13.2 Listing Endpoints

Function

This API is used to list endpoints under a workspace. This API is synchronous.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/endpoints

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Table 13-43 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Table 13-44 Query Parameters

Parameter	Mandatory	Type	Description
engine_types	No	Array of strings	**Definition**: List of endpoint engine types. **Range** • **AuraJob**: AuraJob engine. • **SparkSql**: SparkSQL engine. • **SparkJob**: SparkJob engine. • **FlinkJob**: FlinkJob engine. • **AuraJobV2**: AuraJobV2 engine. • **RayCluster**: RayCluster engine. • **RayJob**: RayJob engine. **Constraints**: N/A
compute_id	No	String	**Definition**: Compute resource ID. You can obtain the compute resource ID by calling the **Listing Compute Resources** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
offset	No	Integer	**Definition**: Page offset. **Constraints**: N/A **Range**: 0 to 10000. **Default Value**: **0**.

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Parameter	Mandatory	Type	Description
limit	No	Integer	**Definition**: Page size. **Constraints**: N/A **Range**: 1 to 1000. **Default Value**: **100**.
name	No	String	**Definition**: Endpoint name, used for exact search. **Constraints**: N/A **Range**: 1 to 63 characters. Must comply with RFC 1035. Only lowercase letters, digits, and hyphens (-) are allowed. The value must start with a lowercase letter and end with a lowercase letter or digit. **Default Value**: N/A
storage_id	No	String	**Definition**: Storage resource ID. **Constraints**: N/A **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
tags	No	Array of strings	**Definition**: Tag filter criteria, supporting multiple tags. **Range**: Format: key#value1,value2. Separate multiple values with commas (,). **Constraints**: Up to 10 tags.

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Request Parameters

Table 13-45 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 13-46 Response body parameters

Parameter	Type	Description
total	Integer	**Definition**: Total number of records. **Range**: N/A
endpoints	Array of **V2EndpointBriefInfo** objects	**Definition**: Endpoint list.

Table 13-47 V2EndpointBriefInfo

Parameter	Type	Description
id	String	**Definition**: Endpoint ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
name	String	**Definition**: Endpoint name. **Range**: 1 to 63 characters. Must comply with RFC 1035. Only lowercase letters, digits, and hyphens (-) are allowed. The value must start with a lowercase letter and end with a lowercase letter or digit.
display_name	String	**Definition**: Endpoint display name. **Range**: 1 to 63 characters. Only letters, digits, and hyphens (-) are allowed.
description	String	**Definition**: Resource description. **Range**: 0 to 1,000 characters. Only letters, digits, and special characters are allowed.
status	String	**Definition**: Endpoint status. **Range** • **CREATING**: Creating. • **RUNNING**: Running. • **CREATE_FAILED**: Creation failed. • **DELETING**: Deleting. • **DELETED**: Deleted. • **UPDATING**: Updating. • **UPDATE_FAILED**: Update failed. • **DELETE_FAILED**: Deletion failed. • **FROZEN**: Frozen. • **TRIAL_ENDED**: Trial ended. • **ON_DEMAND_FROZEN**: On-demand frozen.
engine	One of: • **SparkJob** object • **SparkSql** object • **RayCluster** object • **RayJob** object • **FlinkJob** object • **AuraJob** object • **AuraJobV2** object	**Definition**: Engine configuration.

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Parameter	Type	Description
capacity	Array of **V2EndpointCapacityItem** objects	**Definition**: Compute resource capacity configuration.
resource_type	String	**Definition**: Resource usage mode. **Range** • **RESERVED**: Reserved. • **ONDEMAND**: On-demand. • **HYBRID**: Hybrid.
create_time	String	**Definition**: Resource creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
update_time	String	**Definition**: Resource update time, in UTC, in ISO 8601 format, for example, **2025-01-10T03:37:12.000+00:00**. **Range**: N/A
compute_id	String	**Definition**: Compute resource ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
credential	**CredentialConfig** object	**Definition**: Endpoint-level user agency name, used for authentication of endpoint storage and other configurations, and as the default agency for job execution.
creator	**Creator** object	**Definition**: Resource owner information.
tags	Array of **ResourceTag** objects	**Definition**: Resource tag list.
error	**Error** object	**Definition**: Text message content returned on failure, including the error code and error description.

Table 13-48 SparkJob

Parameter	Type	Description
type	String	**Definition**: Engine type. **Range**: **SparkJob**

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Parameter	Type	Description
spark_config	Map<String,String>	**Definition**: Spark parameter configuration, where the key in the Map is the Spark configuration parameter name and the value is the corresponding parameter value.
scheduling_config	**SparkScheduling-Config** object	**Definition**: SparkJob scheduling configuration.
staging_config	**StagingConfig** object	**Definition**: Temporary storage configuration.
image	**V2ImageBriefInfo** object	**Definition**: Image configuration.

Table 13-49 SparkSchedulingConfig

Parameter	Type	Description
max_concurrent_jobs	Integer	**Definition**: Maximum number of concurrent jobs for the endpoint. **Range**: 1 to 1000.
scheduling_policy	String	**Definition**: Job scheduling policy. Options include **RANDOM** and **FIFO**. **Range** • **RANDOM**: Random. • **FIFO**: First in, first out.
fifo_tolerance_seconds	Integer	**Definition**: First in first out (FIFO) allowed concurrency time, in seconds. **Range**: 0 to 3600.

Table 13-50 SparkSql

Parameter	Type	Description
spark_config	Map<String,String>	**Definition**: Spark parameter configuration, where the key in the Map is the Spark configuration parameter name and the value is the corresponding parameter value.
staging_config	**StagingConfig** object	**Definition**: Temporary storage configuration.
cluster_config	**SparkClusterConfig** object	**Definition**: Cluster configuration.

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Parameter	Type	Description
max_endpoint_concurrent_queries	Integer	**Definition**: Maximum number of concurrent SQL queries for the endpoint. **Range**: 1 to 1,000.
image	**V2ImageBriefInfo** object	**Definition**: Image configuration.

Table 13-51 SparkClusterConfig

Parameter	Type	Description
aging_time	Integer	**Definition**: Cluster aging time, in hours. **Range**: 1 to 12.
auto_stop_config	**AutoStopConfig** object	**Definition**: Cluster auto-stop configuration. **Range**: N/A
driver_resource_spec	**SparkDriverResourceSpec** object	**Definition**: Driver resource configuration for the Spark SQL endpoint. **Range**: N/A
executor_resource_spec	**SparkExecutorResourceSpec** object	**Definition**: Executor resource configuration for the Spark SQL endpoint. **Range**: N/A
min_clusters	Integer	**Definition**: Minimum number of clusters. **Range**: 0 to 20
max_clusters	Integer	**Definition**: Maximum number of clusters. **Range**: 2 to 20
max_cluster_concurrent_queries	Integer	**Definition**: Maximum number of concurrent SQL statements in a cluster. **Range**: 1 to 30

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Table 13-52 AutoStopConfig

Parameter	Type	Description
enabled	Boolean	**Definition**: Specifies whether to automatically stop the cluster. **Range** • **true**: Enable automatic cluster stop. • **false**: Disable automatic cluster stop.
idle_timeout_minutes	Integer	**Definition**: Idle timeout period for automatically stopping the cluster, in minutes. **Range**: 5 to 360

Table 13-53 SparkDriverResourceSpec

Parameter	Type	Description
cpu	Integer	**Definition**: Spark driver CPU, in millicores. **Range**: 1,000 to 48,000.
memory	Integer	**Definition**: Spark Driver memory size, in MB. 1 GB = 1,024 MB. **Range**: 1,024 to 393,216.

Table 13-54 SparkExecutorResourceSpec

Parameter	Type	Description
cpu	Integer	**Definition**: Spark executor CPU, in millicores. **Range**: 1,000 to 48,000.
memory	Integer	**Definition**: Spark Executor memory size, in MB. 1 GB = 1,024 MB. **Range**: 1,024 to 393,216.
min_executor_numbers	Integer	**Definition**: Minimum number of Spark Executors. **Range**: 1 to 2147483647
max_executor_numbers	Integer	**Definition**: Maximum number of Spark Executors. **Range**: 1 to 1000

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Table 13-55 RayCluster

Parameter	Type	Description
cluster_config	**RayClusterConfigV3** object	**Definition**: Ray cluster specification.
redis_config	**RedisConfig** object	**Definition**: Redis cluster configuration. Currently, only DCS is supported.
storages_config	**StoragesConfig** object	**Definition**: Storage resource configuration.
image	**V2ImageBriefInfo** object	**Definition**: Image configuration.
ray_federation_id	String	**Definition**: Ray Federation endpoint ID. **Range**: N/A
history_server_config	**HistoryServerConfig** object	**Definition**: History Server configuration.

Table 13-56 RayClusterConfigV3

Parameter	Type	Description
head_group_spec	**HeadGroupSpecV3** object	**Definition**: Head group configuration. **Range**: N/A
worker_group_specs	Array of **WorkerGroupSpecV3** objects	**Definition**: Worker group configuration.

Table 13-57 HeadGroupSpecV3

Parameter	Type	Description
resource	**ResourceSpecV3** object	**Definition**: Resource specification. **Range**: N/A

Table 13-58 WorkerGroupSpecV3

Parameter	Type	Description
name	String	**Definition**: Worker group name. **Range**: 0 to 128 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
min_replicas	Integer	**Definition**: Minimum number of replicas. **Range**: 0 to 10000.
max_replicas	Integer	**Definition**: Maximum number of replicas. **Range**: 1 to 10000.
resource	**ResourceSpecV3** object	**Definition**: Resource specification. **Range**: N/A

Table 13-59 ResourceSpecV3

Parameter	Type	Description
spec_code	String	**Definition**: Specification code. **Range**: N/A
cpu	Integer	**Definition**: Number of CPU cores, in millicores. **Range**: 0 to 1000000.
memory	Integer	**Definition**: Memory size, in MB. **Range**: 0 to 10000000.
npu	Double	**Definition**: Number of Huawei Cloud AI processing units (PUs). **Range**: 0 to 100.
gpu	Double	**Definition**: Number of GPUs. **Range**: 0 to 100.

Table 13-60 RedisConfig

Parameter	Type	Description
username	String	**Definition**: Account name. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.

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Parameter	Type	Description
dew_secret_name	String	**Definition**: DEW secret name. It stores the password of the DCS account. Format: The secret key is **password**, and the value is the actual password. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.
ssl_enable	Boolean	**Definition**: Whether to enable SSL. **Range** • **true**: Enable SSL. • **false**: Disable SSL.
dcs_id	String	**Definition**: DCS instance ID. You can view it on the instance details page of the DCS console or obtain it by calling the API for listing DCS instances. **Range**: 4 to 1,024 characters. Only letters, digits, and hyphens (-) are allowed.
vpcep_service_id	String	**Definition**: VPC Endpoint server ID, used to connect to the customer-side network. You can view it on the VPC Endpoint console or obtain it by calling the API for listing VPC Endpoint services. This parameter is mandatory when GCS high availability (HA) is enabled, and is used to connect to the customer-side DCS over VPC Endpoint. **Range**: N/A

Table 13-61 RayJob

Parameter	Type	Description
type	String	**Definition**: Engine type. **Range**: **RayJob**
history_server_config	**HistoryServerConfig** object	**Definition**: History Server configuration.

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Table 13-62 HistoryServerConfig

Parameter	Type	Description
enabled	Boolean	**Definition**: Status of the history server function. Set this parameter to **true** to enable the function. **Range** • **true**: Enabled. • **false**: Disabled.
obs	**ObsConfig** object	**Definition**: OBS storage configuration. OBS bucket for storing diagnostic data collected by the History Server collector (for example, data collected by Flow Insight). This service uses the specified agency to read from and write to the bucket. This parameter is mandatory when **enabled** is set to **true**. **Range**: N/A
flow_insight_enabled	Boolean	**Definition**: Flow Insight is a diagnosis and observability feature. It collects metrics, logs, and workflow execution data from the Ray cluster and transmits the data to the configured OBS storage through the History Server collector. This feature is available only when the **enabled** parameter is set to **true**. **Range** • **true**: Enabled. • **false**: Disabled.

Table 13-63 FlinkJob

Parameter	Type	Description
type	String	**Definition**: Engine type. **Range**: **FlinkJob**
flink_config	Map<String,String>	**Definition**: Flink parameter configuration, where the key in the Map is the Flink configuration parameter name and the value is the corresponding parameter value.
staging_config	**StagingConfig** object	**Definition**: Temporary storage configuration.

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Parameter	Type	Description
image	**V2ImageBriefInfo** object	**Definition**: Image configuration.

Table 13-64 StagingConfig

Parameter	Type	Description
obs	**ObsConfig** object	**Definition**: OBS storage configuration. **Range**: N/A

Table 13-65 ObsConfig

Parameter	Type	Description
bucket_name	String	**Definition**: OBS bucket name. The bucket must be a parallel file system. **Range**: 3 to 63 characters. Only lowercase letters, digits, hyphens (-), and periods (.) are allowed.
agency_name	String	**Definition**: Agency name. The cloud service will use this agency to perform operations on the OBS bucket. **Range**: N/A

Table 13-66 V2ImageBriefInfo

Parameter	Type	Description
id	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
version_id	String	**Definition**: Image version ID. You can obtain the image version ID by calling the **Listing Custom Image Versions** API. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Table 13-67 AuraJob

Parameter	Type	Description
storages_config	**StoragesConfig** object	**Definition**: Storage resource configuration.

Table 13-68 AuraJobV2

Parameter	Type	Description
type	String	**Definition**: Engine type. **Range**: **AuraJobV2**
expand_cpu_resource	Boolean	**Definition**: When enabled, jobs from the general-purpose computing workgroup can use idle CPU and memory resources from the intelligent computing workgroup. This operation may cause intelligent computing jobs to queue due to insufficient resources. **Range** • **true**: Enable general-purpose computing workgroup jobs to use idle CPU and memory resources from the intelligent computing workgroup. • **false**: Disable general-purpose computing workgroup jobs from using idle CPU and memory resources from the intelligent computing workgroup.
worker_group_config	Array of **WorkerGroupConfig** objects	**Definition**: Workgroup supplementary configuration, corresponding to external capacity.
staging_config	**AuraV2StagingConfig** object	**Definition**: OBS storage configuration for the computing result set.
storages_config	**StoragesConfig** object	**Definition**: Storage resource configuration.

Table 13-69 WorkerGroupConfig

Parameter	Type	Description
name	String	**Definition**: Workgroup name. **Range**: 1 to 63 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
spec_code	String	**Definition**: Node specifications. **Range**: 1 to 64 characters. Only letters, digits, periods (.), and hyphens (-) are allowed.
cpu	Integer	**Definition**: General-purpose computing CPU size, in millicores. **Range**: 0 to 2,147,483,647.
memory	Integer	**Definition**: General-purpose memory size, in MB. **Range**: 0 to 2,147,483,647.
gpu	Double	**Definition**: Number of GPUs. **Range**: 0 to 2,147,483,647.
npu	Double	**Definition**: Number of NPUs. **Range**: 0 to 2,147,483,647.
image	**ImageVersionInfo** object	**Definition**: Image. **Range**: N/A

Table 13-70 ImageVersionInfo

Parameter	Type	Description
id	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Range**: N/A
version_id	String	**Definition**: Custom image version ID. It can be obtained by calling the **Listing Custom Image Versions** API. **Range**: N/A

Table 13-71 AuraV2StagingConfig

Parameter	Type	Description
obs	**AuraV2ObsConfig** object	**Definition**: OBS storage configuration. **Range**: N/A

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Table 13-72 AuraV2ObsConfig

Parameter	Type	Description
bucket_name	String	**Definition**: OBS bucket name. **Range**: 3 to 63 characters. Only lowercase letters, digits, hyphens (-), and periods (.) are allowed.

Table 13-73 StoragesConfig

Parameter	Type	Description
files	Array of **FileStorageConfig** objects	**Definition**: File storage configuration.

Table 13-74 FileStorageConfig

Parameter	Type	Description
storage_id	String	**Definition**: Storage resource ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
storage_name	String	**Definition**: Storage name, corresponding to the PVC name. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed.
storage_path	String	**Definition**: Path on the storage. **Range**: 1 to 1,024 characters. Only letters, digits, slashes (/), and special characters are allowed.
mount_path	String	**Definition**: Path to mount to a container. **Range**: 1 to 1,024 characters. Only letters, digits, slashes (/), and special characters are allowed.

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Table 13-75 V2EndpointCapacityItem

Parameter	Type	Description
type	String	**Definition**: Resource type. **Range** • **CPU**: Central processing unit. • **GPU**: Graphics processing unit. • **NPU**: Neural processing unit.
maximum_capacity	Integer	**Definition**: Number of resources. The unit for CPU resources is cores, and the unit for GPU/NPU resources is instances. **Range**: 1 to 10000.
minimum_capacity	Integer	**Definition**: Minimum number of resources. The unit for CPU resources is cores, and the unit for GPU/NPU resources is instances. **Range**: 0 to 10000, which is less than or equal to the value of **maximum_capacity**.
spec_code	String	**Definition**: Resource specification. You can obtain it by querying the specification list. **Range**: 1 to 64 characters. Only letters, digits, periods (.), and hyphens (-) are allowed.
use_ondemand_resource	Boolean	**Definition**: Whether to use elastic resources for capacity. **Range** • **true**: Use elastic resources. • **false**: Do not use elastic resources.

Table 13-76 CredentialConfig

Parameter	Type	Description
agency_name	String	**Definition**: Endpoint-level user agency name, used for authentication of endpoint storage and other configurations, and as the default agency for job execution. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.

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Table 13-77 Creator

Parameter	Type	Description
domain_name	String	**Definition**: Tenant name. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.
domain_id	String	**Definition**: Tenant ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.
user_name	String	**Definition**: Username. **Range**: 1 to 64 characters. Only letters, digits, and underscores (_) are allowed.
user_id	String	**Definition**: User ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.

Table 13-78 ResourceTag

Parameter	Type	Description
key	String	**Definition**: Resource tag key. **Range**: 1 to 128 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.
value	String	**Definition**: Resource tag value. **Range**: 0 to 255 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.

Table 13-79 Error

Parameter	Type	Description
error_code	String	**Definition**: Error code on failure. **Range**: 0 to 36 characters. Only letters, digits, periods (.), and underscores (_) are allowed.

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Parameter	Type	Description
error_msg	String	**Definition**: Error message on failure. **Range**: 0 to 1,024 characters. Only letters, digits, and special characters are allowed.

Status code: 400

Table 13-80 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 13-81 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 13-82 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 13-83 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 13-84 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

List endpoints under a specified compute resource under a specified workspace, returning endpoint summary information.

```
GET /v2/workspaces/{workspace_id}/endpoints?compute_id={compute_id}
```

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Example Responses

Status code: 200

- Query the endpoint list in a specified workspace and return the endpoint information of the AuraJob type.


```
{
 "total" : 1,
 "endpoints" : [ {
  "id" : "0b5633ba2b904511ad514346f4d23d4b",
  "name" : "endpoint-01",
  "display_name" : "endpoint-01",
  "description" : "Test endpoint.",
  "status" : "RUNNING",
  "engine" : {
   "type" : "AuraJob"
  },
  "resource_type" : "RESERVED",
  "compute_id" : "00030bf1-4466-4c84-b32d-f601b136f03b",
  "capacity" : [ {
   "type" : "CPU",
   "maximum_capacity" : 10,
   "minimum_capacity" : 0,
   "use_ondemand_resource" : false,
   "spec_code" : "aidatalake.cpu.x86.general.1c4g"
  } ],
  "create_time" : "2025-01-10T03:37:12.000+00:00",
  "update_time" : "2025-01-10T03:37:12.000+00:00",
  "creator" : {
   "domain_name" : "test",
   "domain_id" : "0676610f3a0a4c2c80c50bea7ddf18c1",
   "user_id" : "019e19fb78887b57b2f6c4174cd5a002",
   "user_name" : "developer"
  },
  "tags" : [ {
   "key" : "test",
   "value" : "ai"
  } ],
  "credential" : {
   "agency_name" : "aidatalake_spark"
  },
  "error" : { }
 } ]
}
```


- Query the endpoint list in a specified workspace and return the endpoint information of the SparkSql and SparkJob types.


```
{
 "total" : 2,
 "endpoints" : [ {
  "id" : "1a2b3c4d5e6f7890abcdef1234567890",
  "name" : "spark-sql-test",
  "display_name" : "spark-sql-test",
  "description" : "SparkSql test endpoint",
  "status" : "RUNNING",
  "engine" : {
   "type" : "SparkSql",
   "spark_config" : { },
   "cluster_config" : {
    "aging_time" : 6,
    "auto_stop_config" : {
     "enabled" : true,
     "idle_timeout_minutes" : 10
    },
    "driver_resource_spec" : {
     "cpu" : 4000,
     "memory" : 32768
    },
```


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```
      "executor_resource_spec" : {
        "cpu" : 4000,
        "memory" : 32768,
        "min_executor_numbers" : 2,
        "max_executor_numbers" : 8
      },
      "min_clusters" : 0,
      "max_clusters" : 6,
      "max_cluster_concurrent_queries" : 16
    },
    "max_endpoint_concurrent_queries" : 300
  },
  "resource_type" : "RESERVED",
  "compute_id" : "0150a336-dda9-431c-9ef1-af02ec424a5e",
  "capacity" : [ {
    "type" : "CPU",
    "maximum_capacity" : 1000,
    "minimum_capacity" : 0,
    "use_ondemand_resource" : false,
    "spec_code" : "aidatalake.cpu.x86.general.1c2g"
  } ],
  "create_time" : "2025-01-10T03:37:12.000+00:00",
  "update_time" : "2025-01-10T03:37:12.000+00:00",
  "creator" : {
    "domain_name" : "test",
    "domain_id" : "0676610f3a0a4c2c80c50bea7ddf18c1",
    "user_id" : "019e19fb78887b57b2f6c4174cd5a002",
    "user_name" : "developer"
  },
  "tags" : [ {
    "key" : "test",
    "value" : "ai"
  } ],
  "credential" : {
    "agency_name" : "aidatalake_spark"
  },
  "error" : { }
}, {
  "id" : "2b3c4d5e6f7890abcdef1234567890ab",
  "name" : "spark-job-test",
  "display_name" : "spark-job-test",
  "description" : "SparkJob test endpoint",
  "status" : "RUNNING",
  "engine" : {
    "type" : "SparkJob",
    "spark_config" : { },
    "scheduling_config" : {
      "max_concurrent_jobs" : 300,
      "scheduling_policy" : "RANDOM"
    }
  },
  "resource_type" : "RESERVED",
  "compute_id" : "0150a336-dda9-431c-9ef1-af02ec424a5e",
  "capacity" : [ {
    "type" : "CPU",
    "maximum_capacity" : 1000,
    "minimum_capacity" : 0,
    "use_ondemand_resource" : false,
    "spec_code" : "aidatalake.cpu.x86.general.1c2g"
  } ],
  "create_time" : "2025-01-10T03:37:12.000+00:00",
  "update_time" : "2025-01-10T03:37:12.000+00:00",
  "creator" : {
    "domain_name" : "test",
    "domain_id" : "0676610f3a0a4c2c80c50bea7ddf18c1",
    "user_id" : "019e19fb78887b57b2f6c4174cd5a002",
    "user_name" : "developer"
  },
  "tags" : [ {
```


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```
      "key" : "test",
      "value" : "ai"
    } ],
    "credential" : {
      "agency_name" : "aidatalake_spark"
    },
    "error" : { }
  } ]
}
```


Status code: 400


```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```


Status code: 401


```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```


Status code: 403


```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```


Status code: 404


```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```


Status code: 500


```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```


Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
500	Internal server error.

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13.3 Querying Endpoint Configuration Restrictions

Function

This API is used to query the endpoint configuration limits of each specification in a specified resource pool. This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/endpoint-limit

Table 13-85 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Table 13-86 Query Parameters

Parameter	Mandatory	Type	Description
engine_type	Yes	String	**Definition**: Endpoint engine type. **Constraints**: N/A **Range** • **AuraJob**: AuraJob engine. • **SparkSql**: SparkSQL engine. • **SparkJob**: SparkJob engine. • **FlinkJob**: FlinkJob engine. • **AuraJobV2**: AuraJobV2 engine. • **RayJob**: RayJob engine. • **RayCluster**: RayCluster engine. **Default Value**: N/A
id	No	String	**Definition**: Endpoint ID. You can obtain the endpoint ID by calling the **Listing Endpoints** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
compute_id	Yes	String	**Definition**: Compute resource ID, which can be obtained by calling the **Listing Compute Resources** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Request Parameters

Table 13-87 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 13-88 Response body parameters

Parameter	Type	Description
[items]	Array of **ResourceLimit** objects	**Definition**: Resource limit.

Table 13-89 ResourceLimit

Parameter	Type	Description
type	String	**Definition**: Resource type. **Range** • **CPU**: Central processing unit. • **GPU**: Graphics processing unit. • **NPU**: Neural processing unit.

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Parameter	Type	Description
spec_code	String	**Definition**: Resource specification code, which identifies a specific resource specification in a resource pool and is generated by the system, for example, **aidatalake.cpu.x86.general.1c2g**. **Range**: 1 to 64 characters. Only letters, digits, periods (.), and hyphens (-) are allowed.
compute_allocatable	**ComputeAllocatable** object	**Definition**: Allocatable resource summary.
compute_size	**ComputeSize** object	**Definition**: Total resource information.
worker_sizes	Array of **WorkerSizeInfo** objects	**Definition**: List of optional resource configuration enumerations.

Table 13-90 ComputeAllocatable

Parameter	Type	Description
cpu	Integer	**Definition**: Remaining number of CPUs, in millicores. **Range**: Less than or equal to the CPU size of this specification in the resource pool.
mem	Integer	**Definition**: Remaining memory size, in MB. **Range**: Less than or equal to the memory size of this specification in the resource pool.
accelerator	Integer	**Definition**: Remaining number of GPUs, in cards. **Range**: Less than or equal to the GPU size of this specification in the resource pool.

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Table 13-91 ComputeSize

Parameter	Type	Description
cpu	Integer	**Definition**: Total number of CPU cores, in millicores. **Range**: Equal to the CPU size of this specification in the resource pool.
mem	Integer	**Definition**: Total memory size, in MB. **Range**: Equal to the memory size of this specification in the resource pool.
accelerator	Integer	**Definition**: Total number of GPUs, in cards. **Range**: Equal to the number of GPUs of this specification in the resource pool.

Table 13-92 WorkerSizeInfo

Parameter	Type	Description
cpu	Integer	**Definition**: CPU size in optional resource configurations, that is, the CPU size configured for a single worker, in millicores. **Range**: Less than or equal to the CPU size of this specification in the resource pool.
mem	Integer	**Definition**: Memory size in optional resource configurations, that is, the memory size configured for a single worker, in MB. **Range**: Less than or equal to the memory size of this specification in the resource pool.
accelerator	Integer	**Definition**: Number of GPUs in optional resource configurations, that is, the number of GPUs configured for a single worker. **Range**: Less than or equal to the GPU size of this specification in the resource pool.

Status code: 400

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Table 13-93 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 13-94 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 13-95 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

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Table 13-96 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

Table 13-97 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 13-98 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Query the endpoint configuration restrictions of a specified resource pool, including the resource size and remaining resources of each specification in the resource pool.

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```
GET /v2/workspaces/{workspace_id}/endpoint-limit?engine_type=AuraJob&compute_id=0150a336-dda9-431c-9ef1-af02ec424a5e
```

Example Responses

Status code: 200

```
[ {
  "type" : "CPU",
  "spec_code" : "aidatalake.cpu.x86.general.1c2g",
  "compute_allocatable" : {
    "cpu" : 1000,
    "mem" : 2000
  },
  "compute_size" : {
    "cpu" : 10000,
    "mem" : 20000
  }
}, {
  "type" : "GPU",
  "spec_code" : "aidatalake.gpu.m.hnt02.8x.d",
  "compute_allocatable" : {
    "cpu" : 500,
    "mem" : 1000,
    "accelerator" : 2
  },
  "compute_size" : {
    "cpu" : 5000,
    "mem" : 10000,
    "accelerator" : 4
  }
} ]
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
```

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```
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```


Status code: 500


```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```


Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
408	Request timeout.
500	Internal server error.

13.4 Creating an Endpoint

Function

This API is used to create an endpoint in a workspace. This API is asynchronous. You can obtain the operation result by calling the **Querying Endpoint Details** API.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/workspaces/{workspace_id}/endpoints

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Table 13-99 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Request Parameters

Table 13-100 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

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Table 13-101 Request body parameters

Parameter	Mandatory	Type	Description
compute_id	No	String	**Definition**: Compute resource ID. You can obtain the compute resource ID by calling the **Listing Compute Resources** API. **Constraints**: This parameter is mandatory for endpoints in reserved or hybrid mode. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
name	Yes	String	**Definition**: Endpoint name. **Constraints**: N/A **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a letter and end with a letter or digit. **Default Value**: N/A
display_name	No	String	**Definition**: Endpoint display name. **Constraints**: N/A **Range**: 1 to 63 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
description	No	String	**Definition**: Endpoint description of the engine. **Constraints**: N/A **Range**: 0 to 1,000 characters. Only letters, digits, and special characters are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
engine	Yes	One of: • **CreateSparkJob** object • **CreateSparkSql** object • **CreateRayJob** object • **CreateRayCluster** object • **CreateFlinkJob** object • **CreateAuraJob** object • **CreateAuraJobV2** object	**Definition**: Engine configuration. **Constraints**: The value can be **SparkJob**, **SparkSql**, **RayJob**, **RayCluster**, **FlinkJob**, **AuraJob**, or **AuraJobV2**.
capacity	Yes	Array of **V2EndpointCapacityItem** objects	**Definition**: Compute resource capacity configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
prometheus_config	No	**PrometheusConfig** object	**Definition**: AOM access configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
lts_config	No	**LtsConfig** object	**Definition**: Log Tank Service (LTS) configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

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Parameter	Mandatory	Type	Description
credential	No	CredentialConfig object	**Definition**: Endpoint-level user agency name, used for authentication of endpoint storage and other configurations, and as the default agency for job execution. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
resource_type	Yes	String	**Definition**: Resource usage mode. **Constraints**: N/A **Range** • **RESERVED**: Reserved. • **ONDEMAND**: On-demand. • **HYBRID**: Hybrid. **Default Value**: N/A
tags	No	Array of V2ResourceTag objects	**Definition**: Tag list. Each element is a V2ResourceTag object containing the **key** (tag key) and **value** (tag value) fields. **Constraints**: Up to 20 tags.

Table 13-102 CreateSparkJob

Parameter	Mandatory	Type	Description
spark_config	No	Map<String,String>	**Definition**: Spark parameter configuration, where the key in the Map is the Spark configuration parameter name and the value is the corresponding parameter value. **Constraints**: The maximum value is **100**. **Range**: N/A **Default Value**: N/A

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Parameter	Mandatory	Type	Description
scheduling_config	No	SparkSchedulingConfig object	**Definition**: SparkJob scheduling configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
staging_config	Yes	StagingConfig object	**Definition**: Temporary storage configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
image	No	V2ImageBriefInfo object	**Definition**: Image configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Table 13-103 SparkSchedulingConfig

Parameter	Mandatory	Type	Description
max_concurrent_jobs	No	Integer	**Definition**: Maximum number of concurrent jobs for the endpoint. **Constraints**: N/A **Range**: 1 to 1000. **Default Value**: **200**.
scheduling_policy	No	String	**Definition**: Job scheduling policy. Options include **RANDOM** and **FIFO**. **Constraints**: N/A **Range** • **RANDOM**: Random. • **FIFO**: First in, first out. **Default Value**: **RANDOM**.
fifo_tolerance_seconds	No	Integer	**Definition**: First in first out (FIFO) allowed concurrency time, in seconds. **Constraints**: N/A **Range**: 0 to 3600. **Default Value**: **300**.

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Table 13-104 CreateSparkSql

Parameter	Mandatory	Type	Description
spark_config	No	Map<String,String>	**Definition**: SparkSQL parameter configuration, where the key in the Map is the Spark configuration parameter name and the value is the corresponding parameter value. **Constraints**: The maximum value is **100**. **Range**: N/A **Default Value**: N/A
staging_config	Yes	**StagingConfig** object	**Definition**: Temporary storage configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
cluster_config	Yes	**SparkClusterConfig** object	**Definition**: Cluster configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
max_endpoint_concurrent_queries	No	Integer	**Definition**: Maximum number of concurrent SQL queries for the endpoint. **Constraints**: N/A **Range**: 1 to 1,000. **Default Value**: **300**
image	No	**V2ImageBriefInfo** object	**Definition**: Image configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

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Table 13-105 SparkClusterConfig

Parameter	Mandatory	Type	Description
aging_time	No	Integer	**Definition**: Cluster aging time, in hours. **Constraints**: N/A **Range**: 1 to 12. **Default Value**: **6**.
auto_stop_config	No	**AutoStopConfig** object	**Definition**: Cluster auto-stop configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
driver_resource_spec	Yes	**SparkDriverResourceSpec** object	**Definition**: Driver resource configuration for the Spark SQL endpoint. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
executor_resource_spec	Yes	**SparkExecutorResourceSpec** object	**Definition**: Executor resource configuration for the Spark SQL endpoint. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
min_clusters	No	Integer	**Definition**: Minimum number of clusters. **Constraints**: N/A **Range**: 0 to 20 **Default Value**: **2**
max_clusters	No	Integer	**Definition**: Maximum number of clusters. **Constraints**: N/A **Range**: 2 to 20 **Default Value**: **6**
max_cluster_concurrent_queries	No	Integer	**Definition**: Maximum number of concurrent SQL statements in a cluster. **Constraints**: N/A **Range**: 1 to 30 **Default Value**: **16**

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Table 13-106 AutoStopConfig

Parameter	Mandatory	Type	Description
enabled	No	Boolean	**Definition**: Specifies whether to automatically stop the cluster. **Constraints**: N/A **Range** • **true**: Enable automatic cluster stop. • **false**: Disable automatic cluster stop. **Default Value**: N/A
idle_timeout_minutes	No	Integer	**Definition**: Idle timeout period for automatically stopping the cluster, in minutes. **Constraints**: N/A **Range**: 5 to 360 **Default Value**: **10**

Table 13-107 SparkDriverResourceSpec

Parameter	Mandatory	Type	Description
cpu	Yes	Integer	**Definition**: Spark driver CPU, in millicores. **Constraints**: N/A **Range**: 1,000 to 48,000. **Default Value**: N/A
memory	Yes	Integer	**Definition**: Spark Driver memory size, in MB. 1 GB = 1,024 MB. **Constraints**: N/A **Range**: 1,024 to 393,216. **Default Value**: N/A

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Table 13-108 SparkExecutorResourceSpec

Parameter	Mandatory	Type	Description
cpu	Yes	Integer	**Definition**: Spark executor CPU, in millicores. **Constraints**: N/A **Range**: 1,000 to 48,000. **Default Value**: N/A
memory	Yes	Integer	**Definition**: Spark Executor memory size, in MB. 1 GB = 1,024 MB. **Constraints**: N/A **Range**: 1,024 to 393,216. **Default Value**: N/A
min_executor_numbers	Yes	Integer	**Definition**: Minimum number of Spark Executors. **Constraints**: N/A **Range**: 1 to 2147483647 **Default Value**: N/A
max_executor_numbers	Yes	Integer	**Definition**: Maximum number of Spark Executors. **Constraints**: N/A **Range**: 1 to 1000 **Default Value**: N/A

Table 13-109 CreateRayJob

Parameter	Mandatory	Type	Description
history_server_config	No	**CreateHistoryServerConfig** object	**Definition**: History Server configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

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Table 13-110 CreateRayCluster

Parameter	Mandatory	Type	Description
cluster_config	Yes	**RayClusterConfigV3** object	**Definition**: Ray cluster specification. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
redis_config	No	**RedisConfig** object	**Definition**: Redis cluster configuration. Currently, only DCS is supported. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
storages_config	No	**CreateStoragesConfig** object	**Definition**: Storage resource configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
image	Yes	**V2ImageBriefInfo** object	**Definition**: Image configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
history_server_config	No	**CreateHistoryServerConfig** object	**Definition**: History Server configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Table 13-111 RayClusterConfigV3

Parameter	Mandatory	Type	Description
head_group_spec	Yes	**HeadGroupSpecV3** object	**Definition**: Head group configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

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Parameter	Mandatory	Type	Description
worker_group_specs	Yes	Array of **WorkerGroupSpecV3** objects	**Definition**: Worker group configuration. **Constraints**: N/A

Table 13-112 HeadGroupSpecV3

Parameter	Mandatory	Type	Description
resource	Yes	**ResourceSpecV3** object	**Definition**: Resource specification. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Table 13-113 WorkerGroupSpecV3

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Worker group name. **Constraints**: N/A **Range**: 0 to 128 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
min_replicas	Yes	Integer	**Definition**: Minimum number of replicas. **Constraints**: N/A **Range**: 0 to 10000. **Default Value**: N/A
max_replicas	Yes	Integer	**Definition**: Maximum number of replicas. **Constraints**: N/A **Range**: 1 to 10000. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
resource	Yes	ResourceSpecV3 object	**Definition**: Resource specification. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Table 13-114 ResourceSpecV3

Parameter	Mandatory	Type	Description
spec_code	Yes	String	**Definition**: Specification code. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
cpu	Yes	Integer	**Definition**: Number of CPU cores, in millicores. **Constraints**: N/A **Range**: 0 to 1000000. **Default Value**: **0**.
memory	Yes	Integer	**Definition**: Memory size, in MB. **Constraints**: N/A **Range**: 0 to 10000000. **Default Value**: **0**.
npu	No	Double	**Definition**: Number of Huawei Cloud AI processing units (PUs). **Constraints**: Only integers are currently supported. **Range**: 0 to 100. **Default Value**: **0**
gpu	No	Double	**Definition**: Number of GPUs. **Constraints**: Only integers are currently supported. **Range**: 0 to 100. **Default Value**: **0**

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Table 13-115 RedisConfig

Parameter	Mandatory	Type	Description
username	No	String	**Definition**: Account name. **Constraints**: N/A **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed. **Default Value**: **default**
dew_secret_name	Yes	String	**Definition**: DEW secret name. It stores the password of the DCS account. Format: The secret key is **password**, and the value is the actual password. **Constraints**: N/A **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed. **Default Value**: N/A
ssl_enable	No	Boolean	**Definition**: Whether to enable SSL. **Constraints**: N/A **Range** • **true**: Enable SSL. • **false**: Disable SSL. **Default Value**: **true**
dcs_id	Yes	String	**Definition**: DCS instance ID. You can view it on the instance details page of the DCS console or obtain it by calling the API for listing DCS instances. **Constraints**: N/A **Range**: 4 to 1,024 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
vpcep_service_id	Yes	String	**Definition**: VPC Endpoint server ID, used to connect to the customer-side network. You can view it on the VPC Endpoint console or obtain it by calling the API for listing VPC Endpoint services. This parameter is mandatory when GCS high availability (HA) is enabled, and is used to connect to the customer-side DCS over VPC Endpoint. **Constraints**: This parameter is mandatory when GCS HA is enabled. **Range**: N/A **Default Value**: N/A

Table 13-116 CreateStoragesConfig

Parameter	Mandatory	Type	Description
files	No	Array of **CreateFileStorageConfig** objects	**Definition**: File storage configuration. **Constraints**: Up to 10 file storage configurations. **Range**: N/A **Default Value**: N/A

Table 13-117 CreateFileStorageConfig

Parameter	Mandatory	Type	Description
storage_id	Yes	String	**Definition**: Storage resource ID. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
storage_path	No	String	**Definition**: Path on the storage. **Constraints**: Must be in a format supported by the storage. **Range**: 1 to 1,024 characters. **Default Value**: **/**
mount_path	No	String	**Definition**: Path to mount to a container. **Constraints**: The value must be in a format supported by the container and must not overwrite system paths. The container must be mounted under **/home/service/**. **Range**: 1 to 1,024 characters. **Default Value**: **/home/service/works**

Table 13-118 CreateHistoryServerConfig

Parameter	Mandatory	Type	Description
enabled	No	Boolean	**Definition**: Status of the history server function. Set this parameter to **true** to enable the function. **Constraints**: N/A **Range** • **true**: Enabled. • **false**: Disabled. **Default Value**: **false**

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Parameter	Mandatory	Type	Description
obs	No	ObsConfig object	**Definition**: OBS storage configuration. OBS bucket for storing diagnostic data collected by the History Server collector (for example, data collected by Flow Insight). This service uses the specified agency to read from and write to the bucket. This parameter is mandatory when **enabled** is set to **true**. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Table 13-119 CreateFlinkJob

Parameter	Mandatory	Type	Description
flink_config	No	Map<String,String>	**Definition**: Flink parameter configuration, where the key in the Map is the Flink configuration parameter name and the value is the corresponding parameter value. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
staging_config	Yes	StagingConfig object	**Definition**: Temporary storage configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
image	No	V2ImageBriefInfo object	**Definition**: Image configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

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Table 13-120 StagingConfig

Parameter	Mandatory	Type	Description
obs	No	**ObsConfig** object	**Definition**: OBS storage configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Table 13-121 ObsConfig

Parameter	Mandatory	Type	Description
bucket_name	No	String	**Definition**: OBS bucket name. The bucket must be a parallel file system. **Constraints**: N/A **Range**: 3 to 63 characters. Only lowercase letters, digits, hyphens (-), and periods (.) are allowed. **Default Value**: N/A
agency_name	No	String	**Definition**: Agency name. The cloud service will use this agency to perform operations on the OBS bucket. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Table 13-122 V2ImageBriefInfo

Parameter	Mandatory	Type	Description
id	Yes	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
version_id	Yes	String	**Definition**: Image version ID. You can obtain the image version ID by calling the **Listing Custom Image Versions** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Table 13-123 CreateAuraJob

Parameter	Mandatory	Type	Description
storages_config	No	**StoragesConfig** object	**Definition**: Storage resource configuration. **Constraints**: N/A

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Table 13-124 CreateAuraJobV2

Parameter	Mandatory	Type	Description
expand_cpu_resource	No	Boolean	**Definition**: When enabled, jobs from the general-purpose computing workgroup can use idle CPU and memory resources from the intelligent computing workgroup. This operation may cause intelligent computing jobs to queue due to insufficient resources. **Constraints**: N/A **Range** • **true**: Enable general-purpose computing workgroup jobs to use idle CPU and memory resources from the intelligent computing workgroup. • **false**: Disable general-purpose computing workgroup jobs from using idle CPU and memory resources from the intelligent computing workgroup. **Default Value**: **false**
worker_group_config	Yes	Array of **WorkerGroupConfig** objects	**Definition**: Workgroup supplementary configuration, corresponding to external capacity. **Constraints**: Up to 10.
staging_config	Yes	**AuraV2StagingConfig** object	**Definition**: OBS storage configuration for the computing result set. **Constraints**: N/A
storages_config	Yes	**StoragesConfig** object	**Definition**: Storage resource configuration. **Constraints**: N/A

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Table 13-125 WorkerGroupConfig

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Workgroup name. **Constraints**: The name of an existing workgroup cannot be changed. It must be the same as the current workgroup name. This parameter is mandatory for a new workgroup. **Range**: 1 to 63 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
spec_code	Yes	String	**Definition**: Node specifications. **Constraints**: N/A **Range**: 1 to 64 characters. Only letters, digits, periods (.), and hyphens (-) are allowed. **Default Value**: N/A
cpu	No	Integer	**Definition**: General-purpose computing CPU size, in millicores. **Constraints**: N/A **Range**: 0 to 2,147,483,647. **Default Value**: N/A
memory	No	Integer	**Definition**: General-purpose memory size, in MB. **Constraints**: N/A **Range**: 0 to 2,147,483,647. **Default Value**: N/A
gpu	No	Double	**Definition**: Number of GPUs. **Constraints**: Only integers are currently supported. **Range**: 0 to 2,147,483,647. **Default Value**: N/A
npu	No	Double	**Definition**: Number of NPUs. **Constraints**: Only integers are currently supported. **Range**: 0 to 2,147,483,647. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
image	No	**ImageVersionInfo** object	**Definition**: Image. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Table 13-126 ImageVersionInfo

Parameter	Mandatory	Type	Description
id	Yes	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
version_id	Yes	String	**Definition**: Custom image version ID. It can be obtained by calling the **Listing Custom Image Versions** API. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Table 13-127 AuraV2StagingConfig

Parameter	Mandatory	Type	Description
obs	Yes	**AuraV2ObsConfig** object	**Definition**: OBS storage configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

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Table 13-128 AuraV2ObsConfig

Parameter	Mandatory	Type	Description
bucket_name	Yes	String	**Definition**: OBS bucket name. **Constraints**: N/A **Range**: 3 to 63 characters. Only lowercase letters, digits, hyphens (-), and periods (.) are allowed. **Default Value**: N/A

Table 13-129 StoragesConfig

Parameter	Mandatory	Type	Description
files	Yes	Array of **FileStorageConfig** objects	**Definition**: File storage configuration. **Constraints**: Up to 10 file storage configurations.

Table 13-130 FileStorageConfig

Parameter	Mandatory	Type	Description
storage_id	Yes	String	**Definition**: Storage resource ID. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
storage_name	No	String	**Definition**: Storage name, corresponding to the PVC name. **Constraints**: N/A **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
storage_path	No	String	**Definition**: Path on the storage. **Constraints**: N/A **Range**: 1 to 1,024 characters. Only letters, digits, slashes (/), and special characters are allowed. **Default Value**: N/A
mount_path	No	String	**Definition**: Path to mount to a container. **Constraints**: N/A **Range**: 1 to 1,024 characters. Only letters, digits, slashes (/), and special characters are allowed. **Default Value**: N/A

Table 13-131 V2EndpointCapacityItem

Parameter	Mandatory	Type	Description
type	Yes	String	**Definition**: Resource type. **Constraints**: N/A **Range** • **CPU**: Central processing unit. • **GPU**: Graphics processing unit. • **NPU**: Neural processing unit. **Default Value**: N/A
maximum_capacity	Yes	Integer	**Definition**: Number of resources. The unit for CPU resources is cores, and the unit for GPU/NPU resources is instances. **Constraints**: N/A **Range**: 1 to 10000. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
minimum_capacity	Yes	Integer	**Definition**: Minimum number of resources. The unit for CPU resources is cores, and the unit for GPU/NPU resources is instances. **Constraints**: N/A **Range**: 0 to 10000, which is less than or equal to the value of **maximum_capacity**. **Default Value**: N/A
spec_code	No	String	**Definition**: Resource specification. You can obtain it by querying the specification list. **Constraints**: This parameter is mandatory for reserved and hybrid endpoints. After an endpoint is created, this parameter cannot be modified. **Range**: 1 to 64 characters. Only letters, digits, periods (.), and hyphens (-) are allowed. **Default Value**: N/A
use_ondemand_resource	No	Boolean	**Definition**: Whether to use elastic resources for capacity. **Constraints**: After an endpoint is created, this parameter cannot be modified. **Range** • **true**: Use elastic resources. • **false**: Do not use elastic resources. **Default Value**: **false**

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Table 13-132 PrometheusConfig

Parameter	Mandatory	Type	Description
enable	No	Boolean	**Definition**: Whether to enable AOM integration. **Constraints**: N/A **Range** • **true**: AOM integration is enabled. • **false**: AOM integration is disabled. **Default Value**: **false**
aom_prometheus_id	No	String	**Definition**: AOM Prometheus instance ID. You can obtain it from the AOM management console or by calling the API for listing AOM Prometheus instances. **Constraints**: N/A **Range**: 0 to 256 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed. **Default Value**: N/A

Table 13-133 LtsConfig

Parameter	Mandatory	Type	Description
enable	No	Boolean	**Definition**: Whether to enable LTS. **Constraints**: N/A **Range** • **true**: Enable. – **false**: Disable. **Default Value**: **false**.

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Parameter	Mandatory	Type	Description
lts_group_id	No	String	**Definition**: LTS log group ID. You can view it in the log group list on the log management page of the LTS console. **Constraints**: This parameter is mandatory when **enable** is set to **true**. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
lts_stream_id	No	String	**Definition**: LTS log stream ID. You can expand the log group list on the log management page of the LTS console to view the corresponding log streams. **Constraints**: This parameter is mandatory when **enable** is set to **true**. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Table 13-134 CredentialConfig

Parameter	Mandatory	Type	Description
agency_name	No	String	**Definition**: Endpoint-level user agency name, used for authentication of endpoint storage and other configurations, and as the default agency for job execution. **Constraints**: N/A **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed. **Default Value**: N/A

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Table 13-135 V2ResourceTag

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: Resource tag key. **Constraints**: N/A **Range**: 1 to 128 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed. **Default Value**: N/A
value	No	String	**Definition**: Resource tag value. **Constraints**: N/A **Range**: 0 to 255 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed. **Default Value**: N/A

Response Parameters

Status code: 200

Table 13-136 Response body parameters

Parameter	Type	Description
id	String	**Definition**: Endpoint ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: Endpoint name. **Range**: 1 to 63 characters. Must comply with RFC 1035. Only lowercase letters, digits, and hyphens (-) are allowed. The value must start with a lowercase letter and end with a lowercase letter or digit.

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Parameter	Type	Description
display_name	String	**Definition**: Endpoint display name. **Range**: 1 to 63 characters. Only letters, digits, and hyphens (-) are allowed.
description	String	**Definition**: Resource description. **Range**: 0 to 1,000 characters. Only letters, digits, and special characters are allowed.
status	String	**Definition**: Endpoint status. **Range** • **CREATING**: Creating. • **RUNNING**: Running. • **CREATE_FAILED**: Creation failed. • **DELETING**: Deleting. • **DELETED**: Deleted. • **UPDATING**: Updating. • **UPDATE_FAILED**: Update failed. • **DELETE_FAILED**: Deletion failed. • **FROZEN**: Frozen. • **TRIAL_ENDED**: Trial ended. • **ON_DEMAND_FROZEN**: On-demand frozen.
engine	One of: • **SparkJob** object • **SparkSql** object • **RayCluster** object • **RayJob** object • **FlinkJob** object • **AuraJob** object • **AuraJobV2** object	**Definition**: Engine configuration.
capacity	Array of **V2EndpointCapacityItem** objects	**Definition**: Compute resource capacity configuration.

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Parameter	Type	Description
resource_type	String	**Definition**: Resource usage mode. **Range** • **RESERVED**: Reserved. • **ONDEMAND**: On-demand. • **HYBRID**: Hybrid.
create_time	String	**Definition**: Resource creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
update_time	String	**Definition**: Resource update time, in UTC, in ISO 8601 format, for example, **2025-01-10T03:37:12.000+00:00**. **Range**: N/A
compute_id	String	**Definition**: Compute resource ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
credential	**CredentialConfig** object	**Definition**: Endpoint-level user agency name, used for authentication of endpoint storage and other configurations, and as the default agency for job execution.
creator	**Creator** object	**Definition**: Resource owner information.
tags	Array of **ResourceTag** objects	**Definition**: Resource tag list.
error	**Error** object	**Definition**: Text message content returned on failure, including the error code and error description.
prometheus_config	**PrometheusConfig** object	**Definition**: AOM access configuration. **Range**: N/A
lts_config	**LtsConfig** object	**Definition**: Log Tank Service (LTS) configuration.

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Table 13-137 SparkJob

Parameter	Type	Description
type	String	**Definition**: Engine type. **Range**: **SparkJob**
spark_config	Map<String,String>	**Definition**: Spark parameter configuration, where the key in the Map is the Spark configuration parameter name and the value is the corresponding parameter value.
scheduling_config	**SparkScheduling-Config** object	**Definition**: SparkJob scheduling configuration.
staging_config	**StagingConfig** object	**Definition**: Temporary storage configuration.
image	**V2ImageBriefInfo** object	**Definition**: Image configuration.

Table 13-138 SparkSchedulingConfig

Parameter	Type	Description
max_concurrent_jobs	Integer	**Definition**: Maximum number of concurrent jobs for the endpoint. **Range**: 1 to 1000.
scheduling_policy	String	**Definition**: Job scheduling policy. Options include **RANDOM** and **FIFO**. **Range** • **RANDOM**: Random. • **FIFO**: First in, first out.
fifo_tolerance_seconds	Integer	**Definition**: First in first out (FIFO) allowed concurrency time, in seconds. **Range**: 0 to 3600.

Table 13-139 SparkSql

Parameter	Type	Description
spark_config	Map<String,String>	**Definition**: Spark parameter configuration, where the key in the Map is the Spark configuration parameter name and the value is the corresponding parameter value.

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Parameter	Type	Description
staging_config	**StagingConfig** object	**Definition**: Temporary storage configuration.
cluster_config	**SparkClusterConfig** object	**Definition**: Cluster configuration.
max_endpoint_concurrent_queries	Integer	**Definition**: Maximum number of concurrent SQL queries for the endpoint. **Range**: 1 to 1,000.
image	**V2ImageBriefInfo** object	**Definition**: Image configuration.

Table 13-140 SparkClusterConfig

Parameter	Type	Description
aging_time	Integer	**Definition**: Cluster aging time, in hours. **Range**: 1 to 12.
auto_stop_config	**AutoStopConfig** object	**Definition**: Cluster auto-stop configuration. **Range**: N/A
driver_resource_spec	**SparkDriverResourceSpec** object	**Definition**: Driver resource configuration for the Spark SQL endpoint. **Range**: N/A
executor_resource_spec	**SparkExecutorResourceSpec** object	**Definition**: Executor resource configuration for the Spark SQL endpoint. **Range**: N/A
min_clusters	Integer	**Definition**: Minimum number of clusters. **Range**: 0 to 20
max_clusters	Integer	**Definition**: Maximum number of clusters. **Range**: 2 to 20
max_cluster_concurrent_queries	Integer	**Definition**: Maximum number of concurrent SQL statements in a cluster. **Range**: 1 to 30

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Table 13-141 AutoStopConfig

Parameter	Type	Description
enabled	Boolean	**Definition**: Specifies whether to automatically stop the cluster. **Range** • **true**: Enable automatic cluster stop. • **false**: Disable automatic cluster stop.
idle_timeout_minutes	Integer	**Definition**: Idle timeout period for automatically stopping the cluster, in minutes. **Range**: 5 to 360

Table 13-142 SparkDriverResourceSpec

Parameter	Type	Description
cpu	Integer	**Definition**: Spark driver CPU, in millicores. **Range**: 1,000 to 48,000.
memory	Integer	**Definition**: Spark Driver memory size, in MB. 1 GB = 1,024 MB. **Range**: 1,024 to 393,216.

Table 13-143 SparkExecutorResourceSpec

Parameter	Type	Description
cpu	Integer	**Definition**: Spark executor CPU, in millicores. **Range**: 1,000 to 48,000.
memory	Integer	**Definition**: Spark Executor memory size, in MB. 1 GB = 1,024 MB. **Range**: 1,024 to 393,216.
min_executor_numbers	Integer	**Definition**: Minimum number of Spark Executors. **Range**: 1 to 2147483647
max_executor_numbers	Integer	**Definition**: Maximum number of Spark Executors. **Range**: 1 to 1000

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Table 13-144 RayCluster

Parameter	Type	Description
cluster_config	**RayClusterConfigV3** object	**Definition**: Ray cluster specification.
redis_config	**RedisConfig** object	**Definition**: Redis cluster configuration. Currently, only DCS is supported.
storages_config	**StoragesConfig** object	**Definition**: Storage resource configuration.
image	**V2ImageBriefInfo** object	**Definition**: Image configuration.
ray_federation_id	String	**Definition**: Ray Federation endpoint ID. **Range**: N/A
history_server_config	**HistoryServerConfig** object	**Definition**: History Server configuration.

Table 13-145 RayClusterConfigV3

Parameter	Type	Description
head_group_spec	**HeadGroupSpecV3** object	**Definition**: Head group configuration. **Range**: N/A
worker_group_specs	Array of **WorkerGroupSpecV3** objects	**Definition**: Worker group configuration.

Table 13-146 HeadGroupSpecV3

Parameter	Type	Description
resource	**ResourceSpecV3** object	**Definition**: Resource specification. **Range**: N/A

Table 13-147 WorkerGroupSpecV3

Parameter	Type	Description
name	String	**Definition**: Worker group name. **Range**: 0 to 128 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
min_replicas	Integer	**Definition**: Minimum number of replicas. **Range**: 0 to 10000.
max_replicas	Integer	**Definition**: Maximum number of replicas. **Range**: 1 to 10000.
resource	**ResourceSpecV3** object	**Definition**: Resource specification. **Range**: N/A

Table 13-148 ResourceSpecV3

Parameter	Type	Description
spec_code	String	**Definition**: Specification code. **Range**: N/A
cpu	Integer	**Definition**: Number of CPU cores, in millicores. **Range**: 0 to 1000000.
memory	Integer	**Definition**: Memory size, in MB. **Range**: 0 to 10000000.
npu	Double	**Definition**: Number of Huawei Cloud AI processing units (PUs). **Range**: 0 to 100.
gpu	Double	**Definition**: Number of GPUs. **Range**: 0 to 100.

Table 13-149 RedisConfig

Parameter	Type	Description
username	String	**Definition**: Account name. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.

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Parameter	Type	Description
dew_secret_name	String	**Definition**: DEW secret name. It stores the password of the DCS account. Format: The secret key is **password**, and the value is the actual password. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.
ssl_enable	Boolean	**Definition**: Whether to enable SSL. **Range** • **true**: Enable SSL. • **false**: Disable SSL.
dcs_id	String	**Definition**: DCS instance ID. You can view it on the instance details page of the DCS console or obtain it by calling the API for listing DCS instances. **Range**: 4 to 1,024 characters. Only letters, digits, and hyphens (-) are allowed.
vpcep_service_id	String	**Definition**: VPC Endpoint server ID, used to connect to the customer-side network. You can view it on the VPC Endpoint console or obtain it by calling the API for listing VPC Endpoint services. This parameter is mandatory when GCS high availability (HA) is enabled, and is used to connect to the customer-side DCS over VPC Endpoint. **Range**: N/A

Table 13-150 RayJob

Parameter	Type	Description
type	String	**Definition**: Engine type. **Range**: **RayJob**
history_server_config	**HistoryServerConfig** object	**Definition**: History Server configuration.

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Table 13-151 HistoryServerConfig

Parameter	Type	Description
enabled	Boolean	**Definition**: Status of the history server function. Set this parameter to **true** to enable the function. **Range** • **true**: Enabled. • **false**: Disabled.
obs	**ObsConfig** object	**Definition**: OBS storage configuration. OBS bucket for storing diagnostic data collected by the History Server collector (for example, data collected by Flow Insight). This service uses the specified agency to read from and write to the bucket. This parameter is mandatory when **enabled** is set to **true**. **Range**: N/A
flow_insight_enabled	Boolean	**Definition**: Flow Insight is a diagnosis and observability feature. It collects metrics, logs, and workflow execution data from the Ray cluster and transmits the data to the configured OBS storage through the History Server collector. This feature is available only when the **enabled** parameter is set to **true**. **Range** • **true**: Enabled. • **false**: Disabled.

Table 13-152 FlinkJob

Parameter	Type	Description
type	String	**Definition**: Engine type. **Range**: **FlinkJob**
flink_config	Map<String,String>	**Definition**: Flink parameter configuration, where the key in the Map is the Flink configuration parameter name and the value is the corresponding parameter value.
staging_config	**StagingConfig** object	**Definition**: Temporary storage configuration.

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Parameter	Type	Description
image	**V2ImageBriefInfo** object	**Definition**: Image configuration.

Table 13-153 StagingConfig

Parameter	Type	Description
obs	**ObsConfig** object	**Definition**: OBS storage configuration. **Range**: N/A

Table 13-154 ObsConfig

Parameter	Type	Description
bucket_name	String	**Definition**: OBS bucket name. The bucket must be a parallel file system. **Range**: 3 to 63 characters. Only lowercase letters, digits, hyphens (-), and periods (.) are allowed.
agency_name	String	**Definition**: Agency name. The cloud service will use this agency to perform operations on the OBS bucket. **Range**: N/A

Table 13-155 V2ImageBriefInfo

Parameter	Type	Description
id	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
version_id	String	**Definition**: Image version ID. You can obtain the image version ID by calling the **Listing Custom Image Versions** API. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Table 13-156 AuraJob

Parameter	Type	Description
storages_config	**StoragesConfig** object	**Definition**: Storage resource configuration.

Table 13-157 AuraJobV2

Parameter	Type	Description
type	String	**Definition**: Engine type. **Range**: **AuraJobV2**
expand_cpu_resource	Boolean	**Definition**: When enabled, jobs from the general-purpose computing workgroup can use idle CPU and memory resources from the intelligent computing workgroup. This operation may cause intelligent computing jobs to queue due to insufficient resources. **Range** • **true**: Enable general-purpose computing workgroup jobs to use idle CPU and memory resources from the intelligent computing workgroup. • **false**: Disable general-purpose computing workgroup jobs from using idle CPU and memory resources from the intelligent computing workgroup.
worker_group_config	Array of **WorkerGroupConfig** objects	**Definition**: Workgroup supplementary configuration, corresponding to external capacity.
staging_config	**AuraV2StagingConfig** object	**Definition**: OBS storage configuration for the computing result set.
storages_config	**StoragesConfig** object	**Definition**: Storage resource configuration.

Table 13-158 WorkerGroupConfig

Parameter	Type	Description
name	String	**Definition**: Workgroup name. **Range**: 1 to 63 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
spec_code	String	**Definition**: Node specifications. **Range**: 1 to 64 characters. Only letters, digits, periods (.), and hyphens (-) are allowed.
cpu	Integer	**Definition**: General-purpose computing CPU size, in millicores. **Range**: 0 to 2,147,483,647.
memory	Integer	**Definition**: General-purpose memory size, in MB. **Range**: 0 to 2,147,483,647.
gpu	Double	**Definition**: Number of GPUs. **Range**: 0 to 2,147,483,647.
npu	Double	**Definition**: Number of NPUs. **Range**: 0 to 2,147,483,647.
image	**ImageVersionInfo** object	**Definition**: Image. **Range**: N/A

Table 13-159 ImageVersionInfo

Parameter	Type	Description
id	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Range**: N/A
version_id	String	**Definition**: Custom image version ID. It can be obtained by calling the **Listing Custom Image Versions** API. **Range**: N/A

Table 13-160 AuraV2StagingConfig

Parameter	Type	Description
obs	**AuraV2ObsConfig** object	**Definition**: OBS storage configuration. **Range**: N/A

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Table 13-161 AuraV2ObsConfig

Parameter	Type	Description
bucket_name	String	**Definition**: OBS bucket name. **Range**: 3 to 63 characters. Only lowercase letters, digits, hyphens (-), and periods (.) are allowed.

Table 13-162 StoragesConfig

Parameter	Type	Description
files	Array of **FileStorageConfig** objects	**Definition**: File storage configuration.

Table 13-163 FileStorageConfig

Parameter	Type	Description
storage_id	String	**Definition**: Storage resource ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
storage_name	String	**Definition**: Storage name, corresponding to the PVC name. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed.
storage_path	String	**Definition**: Path on the storage. **Range**: 1 to 1,024 characters. Only letters, digits, slashes (/), and special characters are allowed.
mount_path	String	**Definition**: Path to mount to a container. **Range**: 1 to 1,024 characters. Only letters, digits, slashes (/), and special characters are allowed.

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Table 13-164 V2EndpointCapacityItem

Parameter	Type	Description
type	String	**Definition**: Resource type. **Range** • **CPU**: Central processing unit. • **GPU**: Graphics processing unit. • **NPU**: Neural processing unit.
maximum_capacity	Integer	**Definition**: Number of resources. The unit for CPU resources is cores, and the unit for GPU/NPU resources is instances. **Range**: 1 to 10000.
minimum_capacity	Integer	**Definition**: Minimum number of resources. The unit for CPU resources is cores, and the unit for GPU/NPU resources is instances. **Range**: 0 to 10000, which is less than or equal to the value of **maximum_capacity**.
spec_code	String	**Definition**: Resource specification. You can obtain it by querying the specification list. **Range**: 1 to 64 characters. Only letters, digits, periods (.), and hyphens (-) are allowed.
use_ondemand_resource	Boolean	**Definition**: Whether to use elastic resources for capacity. **Range** • **true**: Use elastic resources. • **false**: Do not use elastic resources.

Table 13-165 CredentialConfig

Parameter	Type	Description
agency_name	String	**Definition**: Endpoint-level user agency name, used for authentication of endpoint storage and other configurations, and as the default agency for job execution. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.

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Table 13-166 Creator

Parameter	Type	Description
domain_name	String	**Definition**: Tenant name. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.
domain_id	String	**Definition**: Tenant ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.
user_name	String	**Definition**: Username. **Range**: 1 to 64 characters. Only letters, digits, and underscores (_) are allowed.
user_id	String	**Definition**: User ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.

Table 13-167 ResourceTag

Parameter	Type	Description
key	String	**Definition**: Resource tag key. **Range**: 1 to 128 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.
value	String	**Definition**: Resource tag value. **Range**: 0 to 255 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.

Table 13-168 Error

Parameter	Type	Description
error_code	String	**Definition**: Error code on failure. **Range**: 0 to 36 characters. Only letters, digits, periods (.), and underscores (_) are allowed.

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Parameter	Type	Description
error_msg	String	**Definition**: Error message on failure. **Range**: 0 to 1,024 characters. Only letters, digits, and special characters are allowed.

Table 13-169 PrometheusConfig

Parameter	Type	Description
enable	Boolean	**Definition**: Whether to enable AOM integration. **Range** • **true**: AOM integration is enabled. • **false**: AOM integration is disabled.
aom_prometheus_id	String	**Definition**: AOM Prometheus instance ID. You can obtain it from the AOM management console or by calling the API for listing AOM Prometheus instances. **Range**: 0 to 256 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.

Table 13-170 LtsConfig

Parameter	Type	Description
enable	Boolean	**Definition**: Whether to enable LTS. **Range** • **true**: Enable. – **false**: Disable.
lts_group_id	String	**Definition**: LTS log group ID. You can view it in the log group list on the log management page of the LTS console. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
lts_stream_id	String	**Definition**: LTS log stream ID. You can expand the log group list on the log management page of the LTS console to view the corresponding log streams. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Status code: 400

Table 13-171 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 13-172 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 13-173 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

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Table 13-174 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 13-175 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

- Create an AuraJobV2 endpoint in a workspace.

```
POST /v2/workspaces/{workspace_id}/endpoints

{
  "name" : "aura-job-sune",
  "display_name" : "endpoint-01",
  "description" : "Test endpoint.",
  "resource_type" : "RESERVED",
  "engine" : {
    "type" : "AuraJobV2",
    "staging_config" : {
      "obs" : {
        "bucket_name" : "1316265"
      }
    },
    "storages_config" : {
      "files" : [ {
        "storage_id" : "0df94743-6210-4134-bc46-acf3b46d9705"
      } ]
    },
    "expand_cpu_resource" : false,
    "worker_group_config" : [ {
      "spec_code" : "aidatalake.cpu.x86.general.1c4g",
      "cpu" : 1000,
      "memory" : 2048,
```

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```
    "gpu" : 0,
    "npu" : 0,
    "name" : "WorkerGroup-1djd",
    "image" : {
      "id" : "94499750-bab9-4f51-bcd7-53ef6bf3a64b",
      "version_id" : "35e2204c-a915-4e4f-92f3-a0c7f8ffaabb"
    }
  }, {
    "spec_code" : "aidatalake.gpu.m.lnt002.2x.d",
    "cpu" : 13000,
    "memory" : 53248,
    "gpu" : 1,
    "npu" : 0,
    "name" : "WorkerGroup-s1lu",
    "image" : {
      "id" : "94499750-bab9-4f51-bcd7-53ef6bf3a64b",
      "version_id" : "35e2204c-a915-4e4f-92f3-a0c7f8ffaabb"
    }
  } ]
 },
 "compute_id" : "00030bf1-4466-4c84-b32d-f601b136f03b",
 "capacity" : [ {
  "type" : "CPU",
  "minimum_capacity" : 0,
  "maximum_capacity" : 10,
  "use_ondemand_resource" : false,
  "spec_code" : "aidatalake.cpu.x86.general.1c4g"
 }, {
  "type" : "GPU",
  "minimum_capacity" : 1,
  "maximum_capacity" : 1,
  "spec_code" : "aidatalake.gpu.m.lnt002.2x.d",
  "use_ondemand_resource" : false
 } ],
 "lts_config" : {
  "enable" : false
 }
}
```

- Create an endpoint of the SparkSql type in the workspace and configure the cluster resource specifications and auto stop policy.

```
POST /v2/workspaces/{workspace_id}/endpoints

{
 "compute_id" : "0150a336-dda9-431c-9ef1-af02ec424a5e",
 "name" : "spark-sql-test",
 "display_name" : "spark-sql-test",
 "resource_type" : "RESERVED",
 "engine" : {
  "type" : "SparkSql",
  "spark_config" : { },
  "staging_config" : {
    "obs" : {
      "bucket_name" : "ai4db",
      "agency_name" : "aidatalake-spark"
    }
  },
  "cluster_config" : {
    "aging_time" : 6,
    "auto_stop_config" : {
      "enabled" : true,
      "idle_timeout_minutes" : 10
    },
    "driver_resource_spec" : {
      "cpu" : 4000,
      "memory" : 32768
    },
    "executor_resource_spec" : {
      "cpu" : 4000,
```

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```
      "memory" : 32768,
      "min_executor_numbers" : 2,
      "max_executor_numbers" : 8
    },
    "min_clusters" : 0,
    "max_clusters" : 6,
    "max_cluster_concurrent_queries" : 16
  },
  "max_endpoint_concurrent_queries" : 300
 },
 "capacity" : [ {
  "type" : "CPU",
  "maximum_capacity" : 1000,
  "minimum_capacity" : 0,
  "use_ondemand_resource" : false,
  "spec_code" : "aidatalake.cpu.x86.general.1c2g"
 } ]
}
```

- Create an endpoint of the SparkJob type in the workspace and configure the scheduling policy and OBS storage.

```
POST /v2/workspaces/{workspace_id}/endpoints

{
 "compute_id" : "0150a336-dda9-431c-9ef1-af02ec424a5e",
 "name" : "spark-job-test",
 "display_name" : "spark-job-test",
 "resource_type" : "RESERVED",
 "engine" : {
  "type" : "SparkJob",
  "spark_config" : { },
  "scheduling_config" : {
    "max_concurrent_jobs" : 300,
    "scheduling_policy" : "RANDOM"
  },
  "staging_config" : {
    "obs" : {
      "bucket_name" : "ai4db",
      "agency_name" : "aidatalake-spark"
    }
  }
 },
 "capacity" : [ {
  "type" : "CPU",
  "maximum_capacity" : 1000,
  "minimum_capacity" : 0,
  "use_ondemand_resource" : false,
  "spec_code" : "aidatalake.cpu.x86.general.1c2g"
 } ],
 "credential" : {
  "agency_name" : "aidatalake-spark"
 }
}
```

Example Responses

Status code: 200

- Create an AuraJobV2 endpoint and return the endpoint information being created.

```
{
 "id" : "0b5633ba2b904511ad514346f4d23d4b",
 "name" : "aura-job-sune",
 "display_name" : "endpoint-01",
 "description" : "Test endpoint.",
 "status" : "CREATING",
 "engine" : {
```

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```
  "type" : "AuraJobV2",
  "worker_group_config" : [ {
    "name" : "WorkerGroup-wpif",
    "spec_code" : "aidatalake.cpu.x86.general.1c4g",
    "cpu" : 1000,
    "memory" : 2048,
    "gpu" : 0,
    "npu" : 0,
    "image" : {
      "id" : "94499750-bab9-4f51-bcd7-53ef6bf3a64b",
      "version_id" : "35e2204c-a915-4e4f-92f3-a0c7f8ffaabb"
    }
  } ],
  "staging_config" : {
    "obs" : {
      "bucket_name" : "1316265"
    }
  },
  "storages_config" : {
    "files" : [ {
      "storage_id" : "0df94743-6210-4134-bc46-acf3b46d9705"
    } ]
  }
},
"resource_type" : "RESERVED",
"compute_id" : "00030bf1-4466-4c84-b32d-f601b136f03b",
"capacity" : [ {
  "type" : "CPU",
  "maximum_capacity" : 10,
  "minimum_capacity" : 0,
  "use_ondemand_resource" : false,
  "spec_code" : "aidatalake.cpu.x86.general.1c4g"
} ],
"create_time" : "2025-01-10T03:37:12.000+00:00",
"update_time" : "2025-01-10T03:37:12.000+00:00",
"creator" : {
  "domain_name" : "test",
  "domain_id" : "0676610f3a0a4c2c80c50bea7ddf18c1",
  "user_id" : "019e19fb78887b57b2f6c4174cd5a002",
  "user_name" : "developer"
},
"lts_config" : {
  "enable" : false
},
"tags" : [ {
  "key" : "test",
  "value" : "ai"
} ]
}
```


- Create an endpoint of the SparkSql type and return the information about the endpoint being created.


```
{
 "id" : "1a2b3c4d5e6f7890abcdef1234567890",
 "name" : "spark-sql-test",
 "display_name" : "spark-sql-test",
 "description" : "SparkSql test endpoint",
 "status" : "CREATING",
 "engine" : {
   "type" : "SparkSql",
   "spark_config" : { },
   "cluster_config" : {
     "aging_time" : 6,
     "auto_stop_config" : {
       "enabled" : true,
       "idle_timeout_minutes" : 10
     },
     "driver_resource_spec" : {
       "cpu" : 4000,
```


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```
      "memory" : 32768
    },
    "executor_resource_spec" : {
      "cpu" : 4000,
      "memory" : 32768,
      "min_executor_numbers" : 2,
      "max_executor_numbers" : 8
    },
    "min_clusters" : 0,
    "max_clusters" : 6,
    "max_cluster_concurrent_queries" : 16
  },
  "max_endpoint_concurrent_queries" : 300
},
"resource_type" : "RESERVED",
"compute_id" : "0150a336-dda9-431c-9ef1-af02ec424a5e",
"capacity" : [ {
  "type" : "CPU",
  "maximum_capacity" : 1000,
  "minimum_capacity" : 0,
  "use_ondemand_resource" : false,
  "spec_code" : "aidatalake.cpu.x86.general.1c2g"
} ],
"create_time" : "2025-01-10T03:37:12.000+00:00",
"update_time" : "2025-01-10T03:37:12.000+00:00",
"creator" : {
  "domain_name" : "test",
  "domain_id" : "0676610f3a0a4c2c80c50bea7ddf18c1",
  "user_id" : "019e19fb78887b57b2f6c4174cd5a002",
  "user_name" : "developer"
},
"tags" : [ {
  "key" : "test",
  "value" : "ai"
} ]
}
```


- Create an endpoint of the SparkJob type and return the information about the endpoint being created.


```
{
  "id" : "2b3c4d5e6f7890abcdef1234567890ab",
  "name" : "spark-job-test",
  "display_name" : "spark-job-test",
  "description" : "SparkJob test endpoint",
  "status" : "CREATING",
  "engine" : {
    "type" : "SparkJob",
    "spark_config" : { },
    "scheduling_config" : {
      "max_concurrent_jobs" : 300,
      "scheduling_policy" : "RANDOM"
    }
  },
  "resource_type" : "RESERVED",
  "compute_id" : "0150a336-dda9-431c-9ef1-af02ec424a5e",
  "capacity" : [ {
    "type" : "CPU",
    "maximum_capacity" : 1000,
    "minimum_capacity" : 0,
    "use_ondemand_resource" : false,
    "spec_code" : "aidatalake.cpu.x86.general.1c2g"
  } ],
  "create_time" : "2025-01-10T03:37:12.000+00:00",
  "update_time" : "2025-01-10T03:37:12.000+00:00",
  "creator" : {
    "domain_name" : "test",
    "domain_id" : "0676610f3a0a4c2c80c50bea7ddf18c1",
    "user_id" : "019e19fb78887b57b2f6c4174cd5a002",
    "user_name" : "developer"
```

```
  },
  "tags" : [ {
    "key" : "test",
    "value" : "ai"
  } ]
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request submitted.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
500	Internal server error.

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13.5 Querying Details of an Endpoint

Function

This API is used to query endpoint details in a workspace. This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/endpoints/{endpoint_id}

Table 13-176 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
endpoint_id	Yes	String	**Definition**: Endpoint ID. You can obtain the endpoint ID by calling the **Listing Endpoints** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Request Parameters

Table 13-177 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 13-178 Response body parameters

Parameter	Type	Description
id	String	**Definition**: Endpoint ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: Endpoint name. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a letter and end with a letter or digit.
display_name	String	**Definition**: Endpoint display name. **Range**: 1 to 63 characters. Only letters, digits, and hyphens (-) are allowed.
description	String	**Definition**: Resource description. **Range**: 0 to 1,000 characters. Only letters, digits, and special characters are allowed.

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Parameter	Type	Description
status	String	**Definition**: Endpoint status. **Range** • **CREATING**: Creating. • **RUNNING**: Running. • **CREATE_FAILED**: Creation failed. • **DELETING**: Deleting. • **DELETED**: Deleted. • **UPDATING**: Updating. • **UPDATE_FAILED**: Update failed. • **DELETE_FAILED**: Deletion failed. • **FROZEN**: Frozen. • **TRIAL_ENDED**: Trial ended. • **ON_DEMAND_FROZEN**: On-demand frozen.
engine	One of: • **ShowSparkJob** object • **ShowSparkSql** object • **RayCluster** object • **RayJob** object • **ShowFlinkJob** object • **AuraJob** object • **AuraJobV2** object	**Definition**: Engine configuration.
capacity	Array of **V2EndpointCapacityItem** objects	**Definition**: Compute resource capacity configuration.
resource_type	String	**Definition**: Resource usage mode. **Range** • **RESERVED**: Reserved. • **ONDEMAND**: On-demand. • **HYBRID**: Hybrid.
create_time	String	**Definition**: Resource creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A

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Parameter	Type	Description
update_time	String	**Definition**: Resource update time, in UTC, in ISO 8601 format, for example, **2025-01-10T03:37:12.000+00:00**. **Range**: N/A
compute_id	String	**Definition**: Compute resource ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
credential	**CredentialConfig** object	**Definition**: Endpoint-level user agency name, used for authentication of endpoint storage and other configurations, and as the default agency for job execution.
creator	**Creator** object	**Definition**: Resource owner information.
tags	Array of **ResourceTag** objects	**Definition**: Resource tag list. Each element is a ResourceTag object containing the **key** (tag key) and **value** (tag value) fields.
error	**Error** object	**Definition**: Text message content returned on failure, including the error code and error description.
prometheus_config	**PrometheusConfig** object	**Definition**: AOM access configuration. **Range**: N/A
lts_config	**LtsConfig** object	**Definition**: Log Tank Service (LTS) configuration.

Table 13-179 ShowSparkJob

Parameter	Type	Description
spark_config	Map<String,String>	**Definition**: Spark parameter configuration, where the key in the Map is the Spark configuration parameter name and the value is the corresponding parameter value.
scheduling_config	**SparkScheduling-Config** object	**Definition**: SparkJob scheduling configuration.
staging_config	**StagingConfig** object	**Definition**: Temporary storage configuration.

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Parameter	Type	Description
image	**ShowSparkV2ImageBriefInfo** object	**Definition**: Image configuration.

Table 13-180 SparkSchedulingConfig

Parameter	Type	Description
max_concurrent_jobs	Integer	**Definition**: Maximum number of concurrent jobs for the endpoint. **Range**: 1 to 1000.
scheduling_policy	String	**Definition**: Job scheduling policy. Options include **RANDOM** and **FIFO**. **Range** • **RANDOM**: Random. • **FIFO**: First in, first out.
fifo_tolerance_seconds	Integer	**Definition**: First in first out (FIFO) allowed concurrency time, in seconds. **Range**: 0 to 3600.

Table 13-181 ShowSparkSql

Parameter	Type	Description
spark_config	Map<String,String>	**Definition**: Spark parameter configuration, where the key in the Map is the Spark configuration parameter name and the value is the corresponding parameter value.
staging_config	**StagingConfig** object	**Definition**: Temporary storage configuration.
cluster_config	**SparkClusterConfig** object	**Definition**: Cluster configuration.
max_endpoint_concurrent_queries	Integer	**Definition**: Maximum number of concurrent SQL queries for the endpoint. **Range**: 1 to 1,000.
image	**ShowSparkV2ImageBriefInfo** object	**Definition**: Image configuration.

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Table 13-182 SparkClusterConfig

Parameter	Type	Description
aging_time	Integer	**Definition**: Cluster aging time, in hours. **Range**: 1 to 12.
auto_stop_config	**AutoStopConfig** object	**Definition**: Cluster auto-stop configuration. **Range**: N/A
driver_resource_spec	**SparkDriverResourceSpec** object	**Definition**: Driver resource configuration for the Spark SQL endpoint. **Range**: N/A
executor_resource_spec	**SparkExecutorResourceSpec** object	**Definition**: Executor resource configuration for the Spark SQL endpoint. **Range**: N/A
min_clusters	Integer	**Definition**: Minimum number of clusters. **Range**: 0 to 20
max_clusters	Integer	**Definition**: Maximum number of clusters. **Range**: 2 to 20
max_cluster_concurrent_queries	Integer	**Definition**: Maximum number of concurrent SQL statements in a cluster. **Range**: 1 to 30

Table 13-183 AutoStopConfig

Parameter	Type	Description
enabled	Boolean	**Definition**: Specifies whether to automatically stop the cluster. **Range** • **true**: Enable automatic cluster stop. • **false**: Disable automatic cluster stop.
idle_timeout_minutes	Integer	**Definition**: Idle timeout period for automatically stopping the cluster, in minutes. **Range**: 5 to 360

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Table 13-184 SparkDriverResourceSpec

Parameter	Type	Description
cpu	Integer	**Definition**: Spark driver CPU, in millicores. **Range**: 1,000 to 48,000.
memory	Integer	**Definition**: Spark Driver memory size, in MB. 1 GB = 1,024 MB. **Range**: 1,024 to 393,216.

Table 13-185 SparkExecutorResourceSpec

Parameter	Type	Description
cpu	Integer	**Definition**: Spark executor CPU, in millicores. **Range**: 1,000 to 48,000.
memory	Integer	**Definition**: Spark Executor memory size, in MB. 1 GB = 1,024 MB. **Range**: 1,024 to 393,216.
min_executor_numbers	Integer	**Definition**: Minimum number of Spark Executors. **Range**: 1 to 2147483647
max_executor_numbers	Integer	**Definition**: Maximum number of Spark Executors. **Range**: 1 to 1000

Table 13-186 ShowSparkV2ImageBriefInfo

Parameter	Type	Description
id	String	**Definition**: Image ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
version_id	String	**Definition**: Image version ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
image_notice	String	**Definition**: Image prompt information. **Range**: 1 to 2,000 characters. Only letters, digits, and hyphens (-) are allowed.

Table 13-187 RayCluster

Parameter	Type	Description
cluster_config	**RayClusterConfigV3** object	**Definition**: Ray cluster specification.
redis_config	**RedisConfig** object	**Definition**: Redis cluster configuration. Currently, only DCS is supported.
storages_config	**StoragesConfig** object	**Definition**: Storage resource configuration.
image	**V2ImageBriefInfo** object	**Definition**: Image configuration.
ray_federation_id	String	**Definition**: Ray Federation endpoint ID. **Range**: N/A
history_server_config	**HistoryServerConfig** object	**Definition**: History Server configuration.

Table 13-188 RayClusterConfigV3

Parameter	Type	Description
head_group_spec	**HeadGroupSpecV3** object	**Definition**: Head group configuration. **Range**: N/A
worker_group_specs	Array of **WorkerGroupSpecV3** objects	**Definition**: Worker group configuration.

Table 13-189 HeadGroupSpecV3

Parameter	Type	Description
resource	**ResourceSpecV3** object	**Definition**: Resource specification. **Range**: N/A

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Table 13-190 WorkerGroupSpecV3

Parameter	Type	Description
name	String	**Definition**: Worker group name. **Range**: 0 to 128 characters. Only letters, digits, and hyphens (-) are allowed.
min_replicas	Integer	**Definition**: Minimum number of replicas. **Range**: 0 to 10000.
max_replicas	Integer	**Definition**: Maximum number of replicas. **Range**: 1 to 10000.
resource	**ResourceSpecV3** object	**Definition**: Resource specification. **Range**: N/A

Table 13-191 ResourceSpecV3

Parameter	Type	Description
spec_code	String	**Definition**: Specification code. **Range**: N/A
cpu	Integer	**Definition**: Number of CPU cores, in millicores. **Range**: 0 to 1000000.
memory	Integer	**Definition**: Memory size, in MB. **Range**: 0 to 10000000.
npu	Double	**Definition**: Number of Huawei Cloud AI processing units (PUs). **Range**: 0 to 100.
gpu	Double	**Definition**: Number of GPUs. **Range**: 0 to 100.

Table 13-192 RedisConfig

Parameter	Type	Description
username	String	**Definition**: Account name. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.

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Parameter	Type	Description
dew_secret_name	String	**Definition**: DEW secret name. It stores the password of the DCS account. Format: The secret key is **password**, and the value is the actual password. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.
ssl_enable	Boolean	**Definition**: Whether to enable SSL. **Range** • **true**: Enable SSL. • **false**: Disable SSL.
dcs_id	String	**Definition**: DCS instance ID. You can view it on the instance details page of the DCS console or obtain it by calling the API for listing DCS instances. **Range**: 4 to 1,024 characters. Only letters, digits, and hyphens (-) are allowed.
vpcep_service_id	String	**Definition**: VPC Endpoint server ID, used to connect to the customer-side network. You can view it on the VPC Endpoint console or obtain it by calling the API for listing VPC Endpoint services. This parameter is mandatory when GCS high availability (HA) is enabled, and is used to connect to the customer-side DCS over VPC Endpoint. **Range**: N/A

Table 13-193 V2ImageBriefInfo

Parameter	Type	Description
id	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
version_id	String	**Definition**: Image version ID. You can obtain the image version ID by calling the **Listing Custom Image Versions** API. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

Table 13-194 RayJob

Parameter	Type	Description
type	String	**Definition**: Engine type. **Range**: **RayJob**
history_server_config	**HistoryServerConfig** object	**Definition**: History Server configuration.

Table 13-195 HistoryServerConfig

Parameter	Type	Description
enabled	Boolean	**Definition**: Status of the history server function. Set this parameter to **true** to enable the function. **Range** • **true**: Enabled. • **false**: Disabled.
obs	**ObsConfig** object	**Definition**: OBS storage configuration. OBS bucket for storing diagnostic data collected by the History Server collector (for example, data collected by Flow Insight). This service uses the specified agency to read from and write to the bucket. This parameter is mandatory when **enabled** is set to **true**. **Range**: N/A

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Parameter	Type	Description
flow_insight_enabled	Boolean	**Definition**: Flow Insight is a diagnosis and observability feature. It collects metrics, logs, and workflow execution data from the Ray cluster and transmits the data to the configured OBS storage through the History Server collector. This feature is available only when the **enabled** parameter is set to **true**. **Range** • **true**: Enabled. • **false**: Disabled.

Table 13-196 ShowFlinkJob

Parameter	Type	Description
flink_config	Map<String,String>	**Definition**: Flink parameter configuration, where the key in the Map is the Flink configuration parameter name and the value is the corresponding parameter value.
staging_config	**StagingConfig** object	**Definition**: Temporary storage configuration.
image	**ShowFlinkV2ImageBriefInfo** object	**Definition**: Image configuration.

Table 13-197 StagingConfig

Parameter	Type	Description
obs	**ObsConfig** object	**Definition**: OBS storage configuration. **Range**: N/A

Table 13-198 ObsConfig

Parameter	Type	Description
bucket_name	String	**Definition**: OBS bucket name. The bucket must be a parallel file system. **Range**: 3 to 63 characters. Only lowercase letters, digits, hyphens (-), and periods (.) are allowed.

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Parameter	Type	Description
agency_name	String	**Definition**: Agency name. The cloud service will use this agency to perform operations on the OBS bucket. **Range**: N/A

Table 13-199 ShowFlinkV2ImageBriefInfo

Parameter	Type	Description
id	String	**Definition**: Image ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
version_id	String	**Definition**: Image version ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
image_notice	String	**Definition**: Image notice. **Range**: 1 to 2,000 characters. Only letters, digits, and hyphens (-) are allowed.

Table 13-200 AuraJob

Parameter	Type	Description
storages_config	StoragesConfig object	**Definition**: Storage resource configuration.

Table 13-201 AuraJobV2

Parameter	Type	Description
type	String	**Definition**: Engine type. **Range**: **AuraJobV2**

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Parameter	Type	Description
expand_cpu_resource	Boolean	**Definition**: When enabled, jobs from the general-purpose computing workgroup can use idle CPU and memory resources from the intelligent computing workgroup. This operation may cause intelligent computing jobs to queue due to insufficient resources. **Range** • **true**: Enable general-purpose computing workgroup jobs to use idle CPU and memory resources from the intelligent computing workgroup. • **false**: Disable general-purpose computing workgroup jobs from using idle CPU and memory resources from the intelligent computing workgroup.
worker_group_config	Array of **WorkerGroupConfig** objects	**Definition**: Workgroup supplementary configuration, corresponding to external capacity.
staging_config	**AuraV2StagingConfig** object	**Definition**: OBS storage configuration for the computing result set.
storages_config	**StoragesConfig** object	**Definition**: Storage resource configuration.

Table 13-202 WorkerGroupConfig

Parameter	Type	Description
name	String	**Definition**: Workgroup name. **Range**: 1 to 63 characters. Only letters, digits, and hyphens (-) are allowed.
spec_code	String	**Definition**: Node specifications. **Range**: 1 to 64 characters. Only letters, digits, periods (.), and hyphens (-) are allowed.
cpu	Integer	**Definition**: General-purpose computing CPU size, in millicores. **Range**: 0 to 2,147,483,647.

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Parameter	Type	Description
memory	Integer	**Definition**: General-purpose memory size, in MB. **Range**: 0 to 2,147,483,647.
gpu	Double	**Definition**: Number of GPUs. **Range**: 0 to 2,147,483,647.
npu	Double	**Definition**: Number of NPUs. **Range**: 0 to 2,147,483,647.
image	**ImageVersionInfo** object	**Definition**: Image. **Range**: N/A

Table 13-203 ImageVersionInfo

Parameter	Type	Description
id	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Range**: N/A
version_id	String	**Definition**: Custom image version ID. It can be obtained by calling the **Listing Custom Image Versions** API. **Range**: N/A

Table 13-204 AuraV2StagingConfig

Parameter	Type	Description
obs	**AuraV2ObsConfig** object	**Definition**: OBS storage configuration. **Range**: N/A

Table 13-205 AuraV2ObsConfig

Parameter	Type	Description
bucket_name	String	**Definition**: OBS bucket name. **Range**: 3 to 63 characters. Only lowercase letters, digits, hyphens (-), and periods (.) are allowed.

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Table 13-206 StoragesConfig

Parameter	Type	Description
files	Array of **FileStorageConfig** objects	**Definition**: File storage configuration.

Table 13-207 FileStorageConfig

Parameter	Type	Description
storage_id	String	**Definition**: Storage resource ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
storage_name	String	**Definition**: Storage name, corresponding to the PVC name. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed.
storage_path	String	**Definition**: Path on the storage. **Range**: 1 to 1,024 characters. Only letters, digits, slashes (/), and special characters are allowed.
mount_path	String	**Definition**: Path to mount to a container. **Range**: 1 to 1,024 characters. Only letters, digits, slashes (/), and special characters are allowed.

Table 13-208 V2EndpointCapacityItem

Parameter	Type	Description
type	String	**Definition**: Resource type. **Range** • **CPU**: Central processing unit. • **GPU**: Graphics processing unit. • **NPU**: Neural processing unit.
maximum_capacity	Integer	**Definition**: Number of resources. The unit for CPU resources is cores, and the unit for GPU/NPU resources is instances. **Range**: 1 to 10000.

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Parameter	Type	Description
minimum_capacity	Integer	**Definition**: Minimum number of resources. The unit for CPU resources is cores, and the unit for GPU/NPU resources is instances. **Range**: 0 to 10000, which is less than or equal to the value of **maximum_capacity**.
spec_code	String	**Definition**: Resource specification. You can obtain it by querying the specification list. **Range**: 1 to 64 characters. Only letters, digits, periods (.), and hyphens (-) are allowed.
use_ondemand_resource	Boolean	**Definition**: Whether to use elastic resources for capacity. **Range** • **true**: Use elastic resources. • **false**: Do not use elastic resources.

Table 13-209 CredentialConfig

Parameter	Type	Description
agency_name	String	**Definition**: Endpoint-level user agency name, used for authentication of endpoint storage and other configurations, and as the default agency for job execution. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.

Table 13-210 Creator

Parameter	Type	Description
domain_name	String	**Definition**: Tenant name. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.
domain_id	String	**Definition**: Tenant ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
user_name	String	**Definition**: Username. **Range**: 1 to 64 characters. Only letters, digits, and underscores (_) are allowed.
user_id	String	**Definition**: User ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.

Table 13-211 ResourceTag

Parameter	Type	Description
key	String	**Definition**: Resource tag key. **Range**: 1 to 128 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.
value	String	**Definition**: Resource tag value. **Range**: 0 to 255 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.

Table 13-212 Error

Parameter	Type	Description
error_code	String	**Definition**: Error code on failure. **Range**: 0 to 36 characters. Only letters, digits, periods (.), and underscores (_) are allowed.
error_msg	String	**Definition**: Error message on failure. **Range**: 0 to 1,024 characters. Only letters, digits, and special characters are allowed.

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Table 13-213 PrometheusConfig

Parameter	Type	Description
enable	Boolean	**Definition**: Whether to enable AOM integration. **Range** • **true**: AOM integration is enabled. • **false**: AOM integration is disabled.
aom_prometheus_id	String	**Definition**: AOM Prometheus instance ID. You can obtain it from the AOM management console or by calling the API for listing AOM Prometheus instances. **Range**: 0 to 256 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.

Table 13-214 LtsConfig

Parameter	Type	Description
enable	Boolean	**Definition**: Whether to enable LTS. **Range** • **true**: Enable. – **false**: Disable.
lts_group_id	String	**Definition**: LTS log group ID. You can view it in the log group list on the log management page of the LTS console. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
lts_stream_id	String	**Definition**: LTS log stream ID. You can expand the log group list on the log management page of the LTS console to view the corresponding log streams. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

Status code: 400

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Table 13-215 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 13-216 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 13-217 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

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Table 13-218 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 13-219 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Query the detailed information of a specified endpoint, including the name, status, engine configuration, monitoring configuration, etc.

```
GET /v2/workspaces/{workspace_id}/endpoints/{endpoint_id}
```

Example Responses

Status code: 200

- Query details of an AuraJobV2 endpoint.

```
{
  "id" : "0b5633ba2b904511ad514346f4d23d4b",
  "name" : "aura-job-sune",
  "display_name" : "endpoint-01",
  "description" : "Test endpoint.",
  "status" : "CREATING",
  "engine" : {
    "type" : "AuraJobV2",
    "worker_group_config" : [ {
      "name" : "WorkerGroup-wpif",
      "spec_code" : "aidatalake.cpu.x86.general.1c4g",
      "cpu" : 1000,
      "memory" : 2048,
```

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```
    "gpu" : 0,
    "npu" : 0,
    "image" : {
      "id" : "94499750-bab9-4f51-bcd7-53ef6bf3a64b",
      "version_id" : "35e2204c-a915-4e4f-92f3-a0c7f8ffaabb"
    }
  } ],
  "staging_config" : {
    "obs" : {
      "bucket_name" : "1316265"
    }
  },
  "storages_config" : {
    "files" : [ {
      "storage_id" : "0df94743-6210-4134-bc46-acf3b46d9705"
    } ]
  }
},
"resource_type" : "RESERVED",
"compute_id" : "00030bf1-4466-4c84-b32d-f601b136f03b",
"capacity" : [ {
  "type" : "CPU",
  "maximum_capacity" : 10,
  "minimum_capacity" : 0,
  "use_ondemand_resource" : false,
  "spec_code" : "aidatalake.cpu.x86.general.1c4g"
} ],
"create_time" : "2025-01-10T03:37:12.000+00:00",
"update_time" : "2025-01-10T03:37:12.000+00:00",
"creator" : {
  "domain_name" : "test",
  "domain_id" : "0676610f3a0a4c2c80c50bea7ddf18c1",
  "user_id" : "019e19fb78887b57b2f6c4174cd5a002",
  "user_name" : "developer"
},
"lts_config" : {
  "enable" : false,
  "lts_group_id" : "d75331a5-8bfe-47ba-9a0d-a68aa9e7ee94",
  "lts_stream_id" : "c688f7fe-51de-4d03-9441-9974a22a9e42"
},
"tags" : [ {
  "key" : "test",
  "value" : "ai"
} ]
}
```


- Query details about an endpoint of the SparkSql type, including the cluster configuration and automatic stop policy.


```
{
 "id" : "1a2b3c4d5e6f7890abcdef1234567890",
 "name" : "spark-sql-test",
 "display_name" : "spark-sql-test",
 "description" : "SparkSql test endpoint",
 "status" : "RUNNING",
 "engine" : {
  "type" : "SparkSql",
  "spark_config" : { },
  "cluster_config" : {
    "aging_time" : 6,
    "auto_stop_config" : {
      "enabled" : true,
      "idle_timeout_minutes" : 10
    },
    "driver_resource_spec" : {
      "cpu" : 4000,
      "memory" : 32768
    },
    "executor_resource_spec" : {
      "cpu" : 4000,
```


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```
      "memory" : 32768,
      "min_executor_numbers" : 2,
      "max_executor_numbers" : 8
    },
    "min_clusters" : 0,
    "max_clusters" : 6,
    "max_cluster_concurrent_queries" : 16
  },
  "max_endpoint_concurrent_queries" : 300
},
"resource_type" : "RESERVED",
"compute_id" : "0150a336-dda9-431c-9ef1-af02ec424a5e",
"capacity" : [ {
  "type" : "CPU",
  "maximum_capacity" : 1000,
  "minimum_capacity" : 0,
  "use_ondemand_resource" : false,
  "spec_code" : "aidatalake.cpu.x86.general.1c2g"
} ],
"create_time" : "2025-01-10T03:37:12.000+00:00",
"update_time" : "2025-01-10T03:37:12.000+00:00",
"creator" : {
  "domain_name" : "test",
  "domain_id" : "0676610f3a0a4c2c80c50bea7ddf18c1",
  "user_id" : "019e19fb78887b57b2f6c4174cd5a002",
  "user_name" : "developer"
},
"tags" : [ {
  "key" : "test",
  "value" : "ai"
} ],
"lts_config" : {
  "enable" : false,
  "lts_group_id" : "d75331a5-8bfe-47ba-9a0d-a68aa9e7ee94",
  "lts_stream_id" : "c688f7fe-51de-4d03-9441-9974a22a9e42"
}
}
```


- Query details about an endpoint of the SparkJob type, including the scheduling policy configuration.


```
{
  "id" : "2b3c4d5e6f7890abcdef1234567890ab",
  "name" : "spark-job-test",
  "display_name" : "spark-job-test",
  "description" : "SparkJob test endpoint",
  "status" : "RUNNING",
  "engine" : {
    "type" : "SparkJob",
    "spark_config" : { },
    "scheduling_config" : {
      "max_concurrent_jobs" : 300,
      "scheduling_policy" : "RANDOM"
    }
  },
  "resource_type" : "RESERVED",
  "compute_id" : "0150a336-dda9-431c-9ef1-af02ec424a5e",
  "capacity" : [ {
    "type" : "CPU",
    "maximum_capacity" : 1000,
    "minimum_capacity" : 0,
    "use_ondemand_resource" : false,
    "spec_code" : "aidatalake.cpu.x86.general.1c2g"
  } ],
  "create_time" : "2025-01-10T03:37:12.000+00:00",
  "update_time" : "2025-01-10T03:37:12.000+00:00",
  "creator" : {
    "domain_name" : "test",
    "domain_id" : "0676610f3a0a4c2c80c50bea7ddf18c1",
    "user_id" : "019e19fb78887b57b2f6c4174cd5a002",
```


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```
    "user_name" : "developer"
  },
  "tags" : [ {
    "key" : "test",
    "value" : "ai"
  } ],
  "lts_config" : {
    "enable" : false,
    "lts_group_id" : "d75331a5-8bfe-47ba-9a0d-a68aa9e7ee94",
    "lts_stream_id" : "c688f7fe-51de-4d03-9441-9974a22a9e42"
  }
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.

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Status Code	Description
404	Resource not found.
500	Internal server error.

13.6 Querying Monitoring Data of an Endpoint

Function

This API is used to query the CPU, memory, NPU, and GPU monitoring data of an endpoint. This API is synchronous.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/endpoints/{endpoint_id}/metrics

Table 13-220 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
endpoint_id	Yes	String	**Definition**: Endpoint ID. You can obtain the endpoint ID by calling the **Listing Endpoints** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Table 13-221 Query Parameters

Parameter	Mandatory	Type	Description
step	Yes	Integer	**Definition**: Query time step. **Constraints**: N/A **Range**: The unit is seconds. • **60**: One data point per minute. • **3600**: One data point per hour. • **86400**: One data point per day. **Default Value**: **60**
metric_name	Yes	String	**Definition**: Metric names. Multiple values are separated by commas (,). **Constraints**: N/A **Range**: Monitoring metrics vary by endpoint engine type. For details, see the following: For aura_job endpoints, see **Endpoint Monitoring Metrics**. For spark (SPARK_JOB/ SPARK_SQL) endpoints, see **Endpoint Monitoring Metrics**. **Default Value**: N/A
start_time	Yes	Long	**Definition**: Start time. **Constraints**: N/A **Range**: Timestamp in seconds. **Default Value**: N/A
end_time	Yes	Long	**Definition**: End time. **Constraints**: N/A **Range**: Timestamp in seconds. **Default Value**: N/A

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Request Parameters

Table 13-222 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 13-223 Response body parameters

Parameter	Type	Description
data	Array of **V2EndpointMetrics** objects	**Definition**: Endpoint metric information.

Table 13-224 V2EndpointMetrics

Parameter	Type	Description
collection_time	Integer	**Definition**: Data time, in seconds. **Range**: N/A
values	Array of **V2EndpointMetric** objects	**Definition**: List of endpoint metric values. Each list element is an endpoint metric information object.

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Table 13-225 V2EndpointMetric

Parameter	Type	Description
metric_name	String	**Definition**: Metric name. **Range**: Monitoring metrics vary by endpoint engine type. For details, see the following: For aura_job endpoints, see **Endpoint Monitoring Metrics**. For spark (SPARK_JOB/SPARK_SQL) endpoints, see**Endpoint Monitoring Metrics**.
metric_value	Number	**Definition**: Metric value. **Range**: N/A

Status code: 400

Table 13-226 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 13-227 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

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Status code: 403

Table 13-228 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

Table 13-229 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 13-230 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

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Example Requests

Query the CPU usage metric data of a specified endpoint from **2026-06-16 13:50:00** to **2026-06-16 13:51:00** with a data step of 1 minute.

```
GET /v2/workspaces/{workspace_id}/endpoints/{endpoint_id}/metrics?
start_time=1781589000&end_time=1781589060&step=60&metric_name=CPU_RATE
```

Example Responses

Status code: 200

```
{
  "data" : [ {
    "collection_time" : 1781589000,
    "values" : [ {
      "metric_name" : "CPU_RATE",
      "metric_value" : 0.5
    } ]
  } ]
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

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Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
408	Request timeout.
500	Internal server error.

13.7 Updating an Endpoint

Function

This API is used to update an endpoint. This API is asynchronous. You can obtain the operation result by calling the **Querying Endpoint Details** API.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v2/workspaces/{workspace_id}/endpoints/{endpoint_id}

Table 13-231 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
endpoint_id	Yes	String	**Definition**: Endpoint ID. You can obtain the endpoint ID by calling the **Listing Endpoints** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Request Parameters

Table 13-232 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Table 13-233 Request body parameters

Parameter	Mandatory	Type	Description
display_name	No	String	**Definition**: Endpoint display name. **Constraints**: N/A **Range**: 1 to 63 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
description	No	String	**Definition**: Resource description. **Constraints**: N/A **Range**: 0 to 1,000 characters. Only letters, digits, and special characters are allowed. **Default Value**: N/A
capacity	No	Array of **V2EndpointCapacityItem** objects	**Definition**: Compute resource capacity configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
engine	No	One of: • **UpdateRayCluster** object • **UpdateRayJob** object • **UpdateAuraJobV2** object • **UpdateSparkJob** object • **UpdateSparkSql** object • **UpdateFlinkJob** object • UpdateAuraJob object	**Definition**: Engine update configuration. **Constraints**: The value can be **SparkJob**, **SparkSql**, **RayJob**, **RayCluster**, **FlinkJob**, **AuraJob**, or **AuraJobV2**.
prometheus_config	No	**PrometheusConfig** object	**Definition**: AOM access configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
lts_config	No	**LtsConfig** object	**Definition**: Log Tank Service (LTS) configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

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Parameter	Mandatory	Type	Description
credential	No	CredentialConfig object	**Definition**: Endpoint-level user agency name, used for authentication of endpoint storage and other configurations, and as the default agency for job execution. **Constraints**: This parameter is mandatory when the endpoint type is **spark_sql**, **spark_job**, or **flink_job**. **Range**: N/A **Default Value**: N/A
tags	No	Array of V2ResourceTag objects	**Definition**: Tag list. Each element is a V2ResourceTag object containing the **key** (tag key) and **value** (tag value) fields. **Constraints**: Up to 20 tags.

Table 13-234 V2EndpointCapacityItem

Parameter	Mandatory	Type	Description
type	Yes	String	**Definition**: Resource type. **Constraints**: N/A **Range** • **CPU**: Central processing unit. • **GPU**: Graphics processing unit. • **NPU**: Neural processing unit. **Default Value**: N/A
maximum_capacity	Yes	Integer	**Definition**: Number of resources. The unit for CPU resources is cores, and the unit for GPU/NPU resources is instances. **Constraints**: N/A **Range**: 1 to 10000. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
minimum_capacity	Yes	Integer	**Definition**: Minimum number of resources. The unit for CPU resources is cores, and the unit for GPU/NPU resources is instances. **Constraints**: N/A **Range**: 0 to 10000, which is less than or equal to the value of **maximum_capacity**. **Default Value**: N/A
spec_code	No	String	**Definition**: Resource specification. You can obtain it by querying the specification list. **Constraints**: This parameter is mandatory for reserved and hybrid endpoints. After an endpoint is created, this parameter cannot be modified. **Range**: 1 to 64 characters. Only letters, digits, periods (.), and hyphens (-) are allowed. **Default Value**: N/A
use_ondemand_resource	No	Boolean	**Definition**: Whether to use elastic resources for capacity. **Constraints**: After an endpoint is created, this parameter cannot be modified. **Range** • **true**: Use elastic resources. • **false**: Do not use elastic resources. **Default Value**: **false**

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Table 13-235 UpdateRayCluster

Parameter	Mandatory	Type	Description
cluster_config	No	**RayClusterConfigV3** object	**Definition**: Ray cluster specification. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
redis_config	No	**RedisConfig** object	**Definition**: Redis cluster configuration. Currently, only DCS is supported. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
storages_config	No	**StoragesConfig** object	**Definition**: Storage resource configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
image	No	**V2ImageBriefInfo** object	**Definition**: Image summary information. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
history_server_config	No	**HistoryServerConfig** object	**Definition**: History Server configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Table 13-236 RayClusterConfigV3

Parameter	Mandatory	Type	Description
head_group_spec	Yes	**HeadGroupSpecV3** object	**Definition**: Head group configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

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Parameter	Mandatory	Type	Description
worker_group_specs	Yes	Array of **WorkerGroupSpecV3** objects	**Definition**: Worker group configuration. **Constraints**: N/A

Table 13-237 HeadGroupSpecV3

Parameter	Mandatory	Type	Description
resource	Yes	**ResourceSpecV3** object	**Definition**: Resource specification. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Table 13-238 WorkerGroupSpecV3

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Worker group name. **Constraints**: N/A **Range**: 0 to 128 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
min_replicas	Yes	Integer	**Definition**: Minimum number of replicas. **Constraints**: N/A **Range**: 0 to 10000. **Default Value**: N/A
max_replicas	Yes	Integer	**Definition**: Maximum number of replicas. **Constraints**: N/A **Range**: 1 to 10000. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
resource	Yes	ResourceSpecV3 object	**Definition**: Resource specification. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Table 13-239 ResourceSpecV3

Parameter	Mandatory	Type	Description
spec_code	Yes	String	**Definition**: Specification code. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
cpu	Yes	Integer	**Definition**: Number of CPU cores, in millicores. **Constraints**: N/A **Range**: 0 to 1000000. **Default Value**: **0**.
memory	Yes	Integer	**Definition**: Memory size, in MB. **Constraints**: N/A **Range**: 0 to 10000000. **Default Value**: **0**.
npu	No	Double	**Definition**: Number of Huawei Cloud AI processing units (PUs). **Constraints**: Only integers are currently supported. **Range**: 0 to 100. **Default Value**: **0**
gpu	No	Double	**Definition**: Number of GPUs. **Constraints**: Only integers are currently supported. **Range**: 0 to 100. **Default Value**: **0**

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Table 13-240 RedisConfig

Parameter	Mandatory	Type	Description
username	No	String	**Definition**: Account name. **Constraints**: N/A **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed. **Default Value**: **default**
dew_secret_name	Yes	String	**Definition**: DEW secret name. It stores the password of the DCS account. Format: The secret key is **password**, and the value is the actual password. **Constraints**: N/A **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed. **Default Value**: N/A
ssl_enable	No	Boolean	**Definition**: Whether to enable SSL. **Constraints**: N/A **Range** • **true**: Enable SSL. • **false**: Disable SSL. **Default Value**: **true**
dcs_id	Yes	String	**Definition**: DCS instance ID. You can view it on the instance details page of the DCS console or obtain it by calling the API for listing DCS instances. **Constraints**: N/A **Range**: 4 to 1,024 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
vpcep_service_id	Yes	String	**Definition**: VPC Endpoint server ID, used to connect to the customer-side network. You can view it on the VPC Endpoint console or obtain it by calling the API for listing VPC Endpoint services. This parameter is mandatory when GCS high availability (HA) is enabled, and is used to connect to the customer-side DCS over VPC Endpoint. **Constraints**: This parameter is mandatory when GCS HA is enabled. **Range**: N/A **Default Value**: N/A

Table 13-241 StoragesConfig

Parameter	Mandatory	Type	Description
files	Yes	Array of **FileStorageConfig** objects	**Definition**: File storage configuration. **Constraints**: Up to 10 file storage configurations.

Table 13-242 FileStorageConfig

Parameter	Mandatory	Type	Description
storage_id	Yes	String	**Definition**: Storage resource ID. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
storage_name	No	String	**Definition**: Storage name, corresponding to the PVC name. **Constraints**: N/A **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
storage_path	No	String	**Definition**: Path on the storage. **Constraints**: N/A **Range**: 1 to 1,024 characters. Only letters, digits, slashes (/), and special characters are allowed. **Default Value**: N/A
mount_path	No	String	**Definition**: Path to mount to a container. **Constraints**: N/A **Range**: 1 to 1,024 characters. Only letters, digits, slashes (/), and special characters are allowed. **Default Value**: N/A

Table 13-243 UpdateRayJob

Parameter	Mandatory	Type	Description
history_server_config	No	**HistoryServerConfig** object	**Definition**: History Server configuration.

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Table 13-244 HistoryServerConfig

Parameter	Mandatory	Type	Description
enabled	No	Boolean	**Definition**: Status of the history server function. Set this parameter to **true** to enable the function. **Constraints**: N/A **Range** • **true**: Enabled. • **false**: Disabled. **Default Value**: **false**
obs	No	**ObsConfig** object	**Definition**: OBS storage configuration. OBS bucket for storing diagnostic data collected by the History Server collector (for example, data collected by Flow Insight). This service uses the specified agency to read from and write to the bucket. This parameter is mandatory when **enabled** is set to **true**. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
flow_insight_enabled	No	Boolean	**Definition**: Flow Insight is a diagnosis and observability feature. It collects metrics, logs, and workflow execution data from the Ray cluster and transmits the data to the configured OBS storage through the History Server collector. This feature is available only when the **enabled** parameter is set to **true**. **Constraints**: N/A **Range** • **true**: Enabled. • **false**: Disabled. **Default Value**: **false**

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Table 13-245 ObsConfig

Parameter	Mandatory	Type	Description
bucket_name	No	String	**Definition**: OBS bucket name. The bucket must be a parallel file system. **Constraints**: N/A **Range**: 3 to 63 characters. Only lowercase letters, digits, hyphens (-), and periods (.) are allowed. **Default Value**: N/A
agency_name	No	String	**Definition**: Agency name. The cloud service will use this agency to perform operations on the OBS bucket. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Table 13-246 UpdateAuraJobV2

Parameter	Mandatory	Type	Description
worker_group_config	No	Array of **WorkerGroupConfig** objects	**Definition**: Workgroup supplementary configuration, corresponding to external capacity. **Constraints**: Up to 10.

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Parameter	Mandatory	Type	Description
expand_cpu_resource	No	Boolean	**Definition**: When enabled, jobs from the general-purpose computing workgroup can use idle CPU and memory resources from the intelligent computing workgroup. This operation may cause intelligent computing jobs to queue due to insufficient resources. **Constraints**: N/A **Range** • **true**: Enable general-purpose computing workgroup jobs to use idle CPU and memory resources from the intelligent computing workgroup. • **false**: Disable general-purpose computing workgroup jobs from using idle CPU and memory resources from the intelligent computing workgroup. **Default Value**: **false**

Table 13-247 WorkerGroupConfig

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Workgroup name. **Constraints**: The name of an existing workgroup cannot be changed. It must be the same as the current workgroup name. This parameter is mandatory for a new workgroup. **Range**: 1 to 63 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
spec_code	Yes	String	**Definition**: Node specifications. **Constraints**: N/A **Range**: 1 to 64 characters. Only letters, digits, periods (.), and hyphens (-) are allowed. **Default Value**: N/A
cpu	No	Integer	**Definition**: General-purpose computing CPU size, in millicores. **Constraints**: N/A **Range**: 0 to 2,147,483,647. **Default Value**: N/A
memory	No	Integer	**Definition**: General-purpose memory size, in MB. **Constraints**: N/A **Range**: 0 to 2,147,483,647. **Default Value**: N/A
gpu	No	Double	**Definition**: Number of GPUs. **Constraints**: Only integers are currently supported. **Range**: 0 to 2,147,483,647. **Default Value**: N/A
npu	No	Double	**Definition**: Number of NPUs. **Constraints**: Only integers are currently supported. **Range**: 0 to 2,147,483,647. **Default Value**: N/A
image	No	**ImageVersionInfo** object	**Definition**: Image. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

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Table 13-248 ImageVersionInfo

Parameter	Mandatory	Type	Description
id	Yes	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
version_id	Yes	String	**Definition**: Custom image version ID. It can be obtained by calling the **Listing Custom Image Versions** API. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Table 13-249 UpdateSparkJob

Parameter	Mandatory	Type	Description
spark_config	No	Map<String,String>	**Definition**: Spark parameter configuration, where the key in the Map is the Spark configuration parameter name and the value is the corresponding parameter value. **Constraints**: The maximum value is **100**. **Range**: N/A **Default Value**: N/A
scheduling_config	No	**UpdateSparkSchedulingConfig** object	**Definition**: SparkJob scheduling configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
image	No	**V2ImageBriefInfo** object	**Definition**: Image configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

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Table 13-250 UpdateSparkSchedulingConfig

Parameter	Mandatory	Type	Description
max_concurrent_jobs	No	Integer	**Definition**: Maximum number of concurrent jobs for the endpoint. **Constraints**: N/A **Range**: 1 to 1,000. **Default Value**: N/A
scheduling_policy	No	String	**Definition**: Job scheduling policy. Options include **RANDOM** and **FIFO**. **Constraints**: N/A **Range** • **RANDOM**: Random. • **FIFO**: First in, first out. **Default Value**: N/A
fifo_tolerance_seconds	No	Integer	**Definition**: First in first out (FIFO) allowed concurrency time, in seconds. **Constraints**: N/A **Range**: 0 to 3,600. **Default Value**: N/A

Table 13-251 UpdateSparkSql

Parameter	Mandatory	Type	Description
image	No	**V2ImageBriefInfo** object	**Definition**: Image configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
spark_config	No	Map<String,String>	**Definition**: Spark parameter configuration, where the key in the Map is the Spark configuration parameter name and the value is the corresponding parameter value. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

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Parameter	Mandatory	Type	Description
cluster_config	No	UpdateSparkClusterConfig object	**Definition**: Cluster configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
max_endpoint_concurrent_queries	No	Integer	**Definition**: Maximum number of concurrent SQL queries for the endpoint. **Constraints**: N/A **Range**: 1 to 1,000. **Default Value**: **300**

Table 13-252 UpdateSparkClusterConfig

Parameter	Mandatory	Type	Description
aging_time	No	Integer	**Definition**: Cluster aging time, in hours. **Constraints**: N/A **Range**: 1 to 12. **Default Value**: N/A
auto_stop_config	No	AutoStopConfig object	**Definition**: Cluster auto-stop configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
driver_resource_spec	No	UpdateSparkDriverResourceSpec object	**Definition**: Driver resource configuration for the Spark SQL endpoint. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
executor_resource_spec	No	UpdateSparkExecutorResourceSpec object	**Definition**: Executor resource configuration for the Spark SQL endpoint. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

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Parameter	Mandatory	Type	Description
min_clusters	No	Integer	**Definition**: Minimum number of clusters. **Constraints**: N/A **Range**: 0 to 20 **Default Value**: N/A
max_clusters	No	Integer	**Definition**: Maximum number of clusters. **Constraints**: N/A **Range**: 2 to 20. **Default Value**: N/A
max_cluster_concurrent_queries	No	Integer	**Definition**: Maximum number of concurrent SQL statements in a cluster. **Constraints**: N/A **Range**: 1 to 30. **Default Value**: N/A

Table 13-253 AutoStopConfig

Parameter	Mandatory	Type	Description
enabled	No	Boolean	**Definition**: Specifies whether to automatically stop the cluster. **Constraints**: N/A **Range** • **true**: Enable automatic cluster stop. • **false**: Disable automatic cluster stop. **Default Value**: N/A
idle_timeout_minutes	No	Integer	**Definition**: Idle timeout period for automatically stopping the cluster, in minutes. **Constraints**: N/A **Range**: 5 to 360 **Default Value**: **10**

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Table 13-254 UpdateSparkDriverResourceSpec

Parameter	Mandatory	Type	Description
cpu	No	Integer	**Definition**: Spark driver CPU, in millicores. **Constraints**: N/A **Range**: 1,000 to 48,000. **Default Value**: N/A
memory	No	Integer	**Definition**: Spark Driver memory size, in MB. 1 GB = 1,024 MB. **Constraints**: N/A **Range**: 1,024 to 393,216. **Default Value**: N/A

Table 13-255 UpdateSparkExecutorResourceSpec

Parameter	Mandatory	Type	Description
cpu	No	Integer	**Definition**: Spark executor CPU, in millicores. **Constraints**: N/A **Range**: 1,000 to 48,000. **Default Value**: N/A
memory	No	Integer	**Definition**: Spark Executor memory size, in MB. 1 GB = 1,024 MB. **Constraints**: N/A **Range**: 1,024 to 393,216. **Default Value**: N/A
min_executor_numbers	No	Integer	**Definition**: Minimum number of Spark Executors. **Constraints**: N/A **Range**: 1 to 2147483647 **Default Value**: N/A
max_executor_numbers	No	Integer	**Definition**: Maximum number of Spark Executors. **Constraints**: N/A **Range**: 1 to 1000. **Default Value**: N/A

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Table 13-256 UpdateFlinkJob

Parameter	Mandatory	Type	Description
flink_config	No	Map<String,String>	**Definition**: Flink parameter configuration, where the key in the Map is the Flink configuration parameter name and the value is the corresponding parameter value. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
image	No	**V2ImageBriefInfo** object	**Definition**: Image configuration. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Table 13-257 V2ImageBriefInfo

Parameter	Mandatory	Type	Description
id	Yes	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
version_id	Yes	String	**Definition**: Image version ID. You can obtain the image version ID by calling the **Listing Custom Image Versions** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Table 13-258 PrometheusConfig

Parameter	Mandatory	Type	Description
enable	No	Boolean	**Definition**: Whether to enable AOM integration. **Constraints**: N/A **Range** • **true**: AOM integration is enabled. • **false**: AOM integration is disabled. **Default Value**: **false**
aom_prometheus_id	No	String	**Definition**: AOM Prometheus instance ID. You can obtain it from the AOM management console or by calling the API for listing AOM Prometheus instances. **Constraints**: N/A **Range**: 0 to 256 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed. **Default Value**: N/A

Table 13-259 LtsConfig

Parameter	Mandatory	Type	Description
enable	No	Boolean	**Definition**: Whether to enable LTS. **Constraints**: N/A **Range** • **true**: Enable. – **false**: Disable. **Default Value**: **false**.

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Parameter	Mandatory	Type	Description
lts_group_id	No	String	**Definition**: LTS log group ID. You can view it in the log group list on the log management page of the LTS console. **Constraints**: This parameter is mandatory when **enable** is set to **true**. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
lts_stream_id	No	String	**Definition**: LTS log stream ID. You can expand the log group list on the log management page of the LTS console to view the corresponding log streams. **Constraints**: This parameter is mandatory when **enable** is set to **true**. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Table 13-260 CredentialConfig

Parameter	Mandatory	Type	Description
agency_name	No	String	**Definition**: Endpoint-level user agency name, used for authentication of endpoint storage and other configurations, and as the default agency for job execution. **Constraints**: N/A **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed. **Default Value**: N/A

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Table 13-261 V2ResourceTag

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: Resource tag key. **Constraints**: N/A **Range**: 1 to 128 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed. **Default Value**: N/A
value	No	String	**Definition**: Resource tag value. **Constraints**: N/A **Range**: 0 to 255 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed. **Default Value**: N/A

Response Parameters

Status code: 200

Table 13-262 Response body parameters

Parameter	Type	Description
id	String	**Definition**: Endpoint ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: Endpoint name. **Range**: 1 to 63 characters. Must comply with RFC 1035. Only lowercase letters, digits, and hyphens (-) are allowed. The value must start with a lowercase letter and end with a lowercase letter or digit.

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Parameter	Type	Description
display_name	String	**Definition**: Endpoint display name. **Range**: 1 to 63 characters. Only letters, digits, and hyphens (-) are allowed.
description	String	**Definition**: Resource description. **Range**: 0 to 1,000 characters. Only letters, digits, and special characters are allowed.
status	String	**Definition**: Endpoint status. **Range** • **CREATING**: Creating. • **RUNNING**: Running. • **CREATE_FAILED**: Creation failed. • **DELETING**: Deleting. • **DELETED**: Deleted. • **UPDATING**: Updating. • **UPDATE_FAILED**: Update failed. • **DELETE_FAILED**: Deletion failed. • **FROZEN**: Frozen. • **TRIAL_ENDED**: Trial ended. • **ON_DEMAND_FROZEN**: On-demand frozen.
engine	One of: • **SparkJob** object • **SparkSql** object • **RayCluster** object • **RayJob** object • **FlinkJob** object • **AuraJob** object • **AuraJobV2** object	**Definition**: Engine configuration.
capacity	Array of **V2EndpointCapacityItem** objects	**Definition**: Compute resource capacity configuration.

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Parameter	Type	Description
resource_type	String	**Definition**: Resource usage mode. **Range** • **RESERVED**: Reserved. • **ONDEMAND**: On-demand. • **HYBRID**: Hybrid.
create_time	String	**Definition**: Resource creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
update_time	String	**Definition**: Resource update time, in UTC, in ISO 8601 format, for example, **2025-01-10T03:37:12.000+00:00**. **Range**: N/A
compute_id	String	**Definition**: Compute resource ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
credential	**CredentialConfig** object	**Definition**: Endpoint-level user agency name, used for authentication of endpoint storage and other configurations, and as the default agency for job execution.
creator	**Creator** object	**Definition**: Resource owner information.
tags	Array of **ResourceTag** objects	**Definition**: Resource tag list.
error	**Error** object	**Definition**: Text message content returned on failure, including the error code and error description.
prometheus_config	**PrometheusConfig** object	**Definition**: AOM access configuration. **Range**: N/A
lts_config	**LtsConfig** object	**Definition**: Log Tank Service (LTS) configuration.

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Table 13-263 SparkJob

Parameter	Type	Description
type	String	**Definition**: Engine type. **Range**: **SparkJob**
spark_config	Map<String,String>	**Definition**: Spark parameter configuration, where the key in the Map is the Spark configuration parameter name and the value is the corresponding parameter value.
scheduling_config	**SparkScheduling-Config** object	**Definition**: SparkJob scheduling configuration.
staging_config	**StagingConfig** object	**Definition**: Temporary storage configuration.
image	**V2ImageBriefInfo** object	**Definition**: Image configuration.

Table 13-264 SparkSchedulingConfig

Parameter	Type	Description
max_concurrent_jobs	Integer	**Definition**: Maximum number of concurrent jobs for the endpoint. **Range**: 1 to 1000.
scheduling_policy	String	**Definition**: Job scheduling policy. Options include **RANDOM** and **FIFO**. **Range** • **RANDOM**: Random. • **FIFO**: First in, first out.
fifo_tolerance_seconds	Integer	**Definition**: First in first out (FIFO) allowed concurrency time, in seconds. **Range**: 0 to 3600.

Table 13-265 SparkSql

Parameter	Type	Description
spark_config	Map<String,String>	**Definition**: Spark parameter configuration, where the key in the Map is the Spark configuration parameter name and the value is the corresponding parameter value.

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Parameter	Type	Description
staging_config	**StagingConfig** object	**Definition**: Temporary storage configuration.
cluster_config	**SparkClusterConfig** object	**Definition**: Cluster configuration.
max_endpoint_concurrent_queries	Integer	**Definition**: Maximum number of concurrent SQL queries for the endpoint. **Range**: 1 to 1,000.
image	**V2ImageBriefInfo** object	**Definition**: Image configuration.

Table 13-266 SparkClusterConfig

Parameter	Type	Description
aging_time	Integer	**Definition**: Cluster aging time, in hours. **Range**: 1 to 12.
auto_stop_config	**AutoStopConfig** object	**Definition**: Cluster auto-stop configuration. **Range**: N/A
driver_resource_spec	**SparkDriverResourceSpec** object	**Definition**: Driver resource configuration for the Spark SQL endpoint. **Range**: N/A
executor_resource_spec	**SparkExecutorResourceSpec** object	**Definition**: Executor resource configuration for the Spark SQL endpoint. **Range**: N/A
min_clusters	Integer	**Definition**: Minimum number of clusters. **Range**: 0 to 20
max_clusters	Integer	**Definition**: Maximum number of clusters. **Range**: 2 to 20
max_cluster_concurrent_queries	Integer	**Definition**: Maximum number of concurrent SQL statements in a cluster. **Range**: 1 to 30

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Table 13-267 AutoStopConfig

Parameter	Type	Description
enabled	Boolean	**Definition**: Specifies whether to automatically stop the cluster. **Range** • **true**: Enable automatic cluster stop. • **false**: Disable automatic cluster stop.
idle_timeout_minutes	Integer	**Definition**: Idle timeout period for automatically stopping the cluster, in minutes. **Range**: 5 to 360

Table 13-268 SparkDriverResourceSpec

Parameter	Type	Description
cpu	Integer	**Definition**: Spark driver CPU, in millicores. **Range**: 1,000 to 48,000.
memory	Integer	**Definition**: Spark Driver memory size, in MB. 1 GB = 1,024 MB. **Range**: 1,024 to 393,216.

Table 13-269 SparkExecutorResourceSpec

Parameter	Type	Description
cpu	Integer	**Definition**: Spark executor CPU, in millicores. **Range**: 1,000 to 48,000.
memory	Integer	**Definition**: Spark Executor memory size, in MB. 1 GB = 1,024 MB. **Range**: 1,024 to 393,216.
min_executor_numbers	Integer	**Definition**: Minimum number of Spark Executors. **Range**: 1 to 2147483647
max_executor_numbers	Integer	**Definition**: Maximum number of Spark Executors. **Range**: 1 to 1000

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Table 13-270 RayCluster

Parameter	Type	Description
cluster_config	**RayClusterConfigV3** object	**Definition**: Ray cluster specification.
redis_config	**RedisConfig** object	**Definition**: Redis cluster configuration. Currently, only DCS is supported.
storages_config	**StoragesConfig** object	**Definition**: Storage resource configuration.
image	**V2ImageBriefInfo** object	**Definition**: Image configuration.
ray_federation_id	String	**Definition**: Ray Federation endpoint ID. **Range**: N/A
history_server_config	**HistoryServerConfig** object	**Definition**: History Server configuration.

Table 13-271 RayClusterConfigV3

Parameter	Type	Description
head_group_spec	**HeadGroupSpecV3** object	**Definition**: Head group configuration. **Range**: N/A
worker_group_specs	Array of **WorkerGroupSpecV3** objects	**Definition**: Worker group configuration.

Table 13-272 HeadGroupSpecV3

Parameter	Type	Description
resource	**ResourceSpecV3** object	**Definition**: Resource specification. **Range**: N/A

Table 13-273 WorkerGroupSpecV3

Parameter	Type	Description
name	String	**Definition**: Worker group name. **Range**: 0 to 128 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
min_replicas	Integer	**Definition**: Minimum number of replicas. **Range**: 0 to 10000.
max_replicas	Integer	**Definition**: Maximum number of replicas. **Range**: 1 to 10000.
resource	**ResourceSpecV3** object	**Definition**: Resource specification. **Range**: N/A

Table 13-274 ResourceSpecV3

Parameter	Type	Description
spec_code	String	**Definition**: Specification code. **Range**: N/A
cpu	Integer	**Definition**: Number of CPU cores, in millicores. **Range**: 0 to 1000000.
memory	Integer	**Definition**: Memory size, in MB. **Range**: 0 to 10000000.
npu	Double	**Definition**: Number of Huawei Cloud AI processing units (PUs). **Range**: 0 to 100.
gpu	Double	**Definition**: Number of GPUs. **Range**: 0 to 100.

Table 13-275 RedisConfig

Parameter	Type	Description
username	String	**Definition**: Account name. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.

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Parameter	Type	Description
dew_secret_name	String	**Definition**: DEW secret name. It stores the password of the DCS account. Format: The secret key is **password**, and the value is the actual password. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.
ssl_enable	Boolean	**Definition**: Whether to enable SSL. **Range** • **true**: Enable SSL. • **false**: Disable SSL.
dcs_id	String	**Definition**: DCS instance ID. You can view it on the instance details page of the DCS console or obtain it by calling the API for listing DCS instances. **Range**: 4 to 1,024 characters. Only letters, digits, and hyphens (-) are allowed.
vpcep_service_id	String	**Definition**: VPC Endpoint server ID, used to connect to the customer-side network. You can view it on the VPC Endpoint console or obtain it by calling the API for listing VPC Endpoint services. This parameter is mandatory when GCS high availability (HA) is enabled, and is used to connect to the customer-side DCS over VPC Endpoint. **Range**: N/A

Table 13-276 RayJob

Parameter	Type	Description
type	String	**Definition**: Engine type. **Range**: **RayJob**
history_server_config	**HistoryServerConfig** object	**Definition**: History Server configuration.

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Table 13-277 HistoryServerConfig

Parameter	Type	Description
enabled	Boolean	**Definition**: Status of the history server function. Set this parameter to **true** to enable the function. **Range** • **true**: Enabled. • **false**: Disabled.
obs	**ObsConfig** object	**Definition**: OBS storage configuration. OBS bucket for storing diagnostic data collected by the History Server collector (for example, data collected by Flow Insight). This service uses the specified agency to read from and write to the bucket. This parameter is mandatory when **enabled** is set to **true**. **Range**: N/A
flow_insight_enabled	Boolean	**Definition**: Flow Insight is a diagnosis and observability feature. It collects metrics, logs, and workflow execution data from the Ray cluster and transmits the data to the configured OBS storage through the History Server collector. This feature is available only when the **enabled** parameter is set to **true**. **Range** • **true**: Enabled. • **false**: Disabled.

Table 13-278 FlinkJob

Parameter	Type	Description
type	String	**Definition**: Engine type. **Range**: **FlinkJob**
flink_config	Map<String,String>	**Definition**: Flink parameter configuration, where the key in the Map is the Flink configuration parameter name and the value is the corresponding parameter value.
staging_config	**StagingConfig** object	**Definition**: Temporary storage configuration.

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Parameter	Type	Description
image	**V2ImageBriefInfo** object	**Definition**: Image configuration.

Table 13-279 StagingConfig

Parameter	Type	Description
obs	**ObsConfig** object	**Definition**: OBS storage configuration. **Range**: N/A

Table 13-280 ObsConfig

Parameter	Type	Description
bucket_name	String	**Definition**: OBS bucket name. The bucket must be a parallel file system. **Range**: 3 to 63 characters. Only lowercase letters, digits, hyphens (-), and periods (.) are allowed.
agency_name	String	**Definition**: Agency name. The cloud service will use this agency to perform operations on the OBS bucket. **Range**: N/A

Table 13-281 V2ImageBriefInfo

Parameter	Type	Description
id	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
version_id	String	**Definition**: Image version ID. You can obtain the image version ID by calling the **Listing Custom Image Versions** API. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Table 13-282 AuraJob

Parameter	Type	Description
storages_config	**StoragesConfig** object	**Definition**: Storage resource configuration.

Table 13-283 AuraJobV2

Parameter	Type	Description
type	String	**Definition**: Engine type. **Range**: **AuraJobV2**
expand_cpu_resource	Boolean	**Definition**: When enabled, jobs from the general-purpose computing workgroup can use idle CPU and memory resources from the intelligent computing workgroup. This operation may cause intelligent computing jobs to queue due to insufficient resources. **Range** • **true**: Enable general-purpose computing workgroup jobs to use idle CPU and memory resources from the intelligent computing workgroup. • **false**: Disable general-purpose computing workgroup jobs from using idle CPU and memory resources from the intelligent computing workgroup.
worker_group_config	Array of **WorkerGroupConfig** objects	**Definition**: Workgroup supplementary configuration, corresponding to external capacity.
staging_config	**AuraV2StagingConfig** object	**Definition**: OBS storage configuration for the computing result set.
storages_config	**StoragesConfig** object	**Definition**: Storage resource configuration.

Table 13-284 WorkerGroupConfig

Parameter	Type	Description
name	String	**Definition**: Workgroup name. **Range**: 1 to 63 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
spec_code	String	**Definition**: Node specifications. **Range**: 1 to 64 characters. Only letters, digits, periods (.), and hyphens (-) are allowed.
cpu	Integer	**Definition**: General-purpose computing CPU size, in millicores. **Range**: 0 to 2,147,483,647.
memory	Integer	**Definition**: General-purpose memory size, in MB. **Range**: 0 to 2,147,483,647.
gpu	Double	**Definition**: Number of GPUs. **Range**: 0 to 2,147,483,647.
npu	Double	**Definition**: Number of NPUs. **Range**: 0 to 2,147,483,647.
image	**ImageVersionInfo** object	**Definition**: Image. **Range**: N/A

Table 13-285 ImageVersionInfo

Parameter	Type	Description
id	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Range**: N/A
version_id	String	**Definition**: Custom image version ID. It can be obtained by calling the **Listing Custom Image Versions** API. **Range**: N/A

Table 13-286 AuraV2StagingConfig

Parameter	Type	Description
obs	**AuraV2ObsConfig** object	**Definition**: OBS storage configuration. **Range**: N/A

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Table 13-287 AuraV2ObsConfig

Parameter	Type	Description
bucket_name	String	**Definition**: OBS bucket name. **Range**: 3 to 63 characters. Only lowercase letters, digits, hyphens (-), and periods (.) are allowed.

Table 13-288 StoragesConfig

Parameter	Type	Description
files	Array of **FileStorageConfig** objects	**Definition**: File storage configuration.

Table 13-289 FileStorageConfig

Parameter	Type	Description
storage_id	String	**Definition**: Storage resource ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
storage_name	String	**Definition**: Storage name, corresponding to the PVC name. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed.
storage_path	String	**Definition**: Path on the storage. **Range**: 1 to 1,024 characters. Only letters, digits, slashes (/), and special characters are allowed.
mount_path	String	**Definition**: Path to mount to a container. **Range**: 1 to 1,024 characters. Only letters, digits, slashes (/), and special characters are allowed.

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Table 13-290 V2EndpointCapacityItem

Parameter	Type	Description
type	String	**Definition**: Resource type. **Range** • **CPU**: Central processing unit. • **GPU**: Graphics processing unit. • **NPU**: Neural processing unit.
maximum_capacity	Integer	**Definition**: Number of resources. The unit for CPU resources is cores, and the unit for GPU/NPU resources is instances. **Range**: 1 to 10000.
minimum_capacity	Integer	**Definition**: Minimum number of resources. The unit for CPU resources is cores, and the unit for GPU/NPU resources is instances. **Range**: 0 to 10000, which is less than or equal to the value of **maximum_capacity**.
spec_code	String	**Definition**: Resource specification. You can obtain it by querying the specification list. **Range**: 1 to 64 characters. Only letters, digits, periods (.), and hyphens (-) are allowed.
use_ondemand_resource	Boolean	**Definition**: Whether to use elastic resources for capacity. **Range** • **true**: Use elastic resources. • **false**: Do not use elastic resources.

Table 13-291 CredentialConfig

Parameter	Type	Description
agency_name	String	**Definition**: Endpoint-level user agency name, used for authentication of endpoint storage and other configurations, and as the default agency for job execution. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.

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Table 13-292 Creator

Parameter	Type	Description
domain_name	String	**Definition**: Tenant name. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.
domain_id	String	**Definition**: Tenant ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.
user_name	String	**Definition**: Username. **Range**: 1 to 64 characters. Only letters, digits, and underscores (_) are allowed.
user_id	String	**Definition**: User ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.

Table 13-293 ResourceTag

Parameter	Type	Description
key	String	**Definition**: Resource tag key. **Range**: 1 to 128 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.
value	String	**Definition**: Resource tag value. **Range**: 0 to 255 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.

Table 13-294 Error

Parameter	Type	Description
error_code	String	**Definition**: Error code on failure. **Range**: 0 to 36 characters. Only letters, digits, periods (.), and underscores (_) are allowed.

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Parameter	Type	Description
error_msg	String	**Definition**: Error message on failure. **Range**: 0 to 1,024 characters. Only letters, digits, and special characters are allowed.

Table 13-295 PrometheusConfig

Parameter	Type	Description
enable	Boolean	**Definition**: Whether to enable AOM integration. **Range** • **true**: AOM integration is enabled. • **false**: AOM integration is disabled.
aom_prometheus_id	String	**Definition**: AOM Prometheus instance ID. You can obtain it from the AOM management console or by calling the API for listing AOM Prometheus instances. **Range**: 0 to 256 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.

Table 13-296 LtsConfig

Parameter	Type	Description
enable	Boolean	**Definition**: Whether to enable LTS. **Range** • **true**: Enable. – **false**: Disable.
lts_group_id	String	**Definition**: LTS log group ID. You can view it in the log group list on the log management page of the LTS console. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
lts_stream_id	String	**Definition**: LTS log stream ID. You can expand the log group list on the log management page of the LTS console to view the corresponding log streams. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Status code: 400

Table 13-297 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 13-298 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 13-299 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

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Table 13-300 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 13-301 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

- Update the description of an AuraJobV2 endpoint.

```
PUT /v2/workspaces/{workspace_id}/endpoints/{endpoint_id}

{
 "display_name" : "aura-job-endpoint-2",
 "description" : "Updated description.",
 "engine" : {
   "type" : "AuraJobV2",
   "worker_group_config" : [ {
     "spec_code" : "aidatalake.cpu.x86.general.1c4g",
     "cpu" : 1000,
     "memory" : 2048,
     "gpu" : 0,
     "npu" : 0,
     "name" : "WorkerGroup-wpif",
     "image" : {
       "id" : "94499750-bab9-4f51-bcd7-53ef6bf3a64b",
       "version_id" : "35e2204c-a915-4e4f-92f3-a0c7f8ffaabb"
     }
   } ]
 },
 "capacity" : [ {
   "type" : "CPU",
   "maximum_capacity" : 10,
   "minimum_capacity" : 0,
```

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```
    "use_ondemand_resource" : false,
    "spec_code" : "aidatalake.cpu.x86.general.1c4g"
  } ],
  "lts_config" : {
    "enable" : false
  }
}
```

- Update the cluster configuration and automatic stop policy of the SparkSql endpoint.

```
PUT /v2/workspaces/{workspace_id}/endpoints/{endpoint_id}

{
  "description" : "Updated description of the SparkSql endpoint.",
  "engine" : {
    "type" : "SparkSql",
    "spark_config" : { },
    "cluster_config" : {
      "aging_time" : 6,
      "auto_stop_config" : {
        "enabled" : true,
        "idle_timeout_minutes" : 10
      },
      "driver_resource_spec" : {
        "cpu" : 4000,
        "memory" : 32768
      },
      "executor_resource_spec" : {
        "cpu" : 4000,
        "memory" : 32768,
        "min_executor_numbers" : 2,
        "max_executor_numbers" : 8
      },
      "min_clusters" : 0,
      "max_clusters" : 6,
      "max_cluster_concurrent_queries" : 16
    },
    "max_endpoint_concurrent_queries" : 300
  },
  "capacity" : [ {
    "type" : "CPU",
    "maximum_capacity" : 1000,
    "minimum_capacity" : 0,
    "use_ondemand_resource" : false,
    "spec_code" : "aidatalake.cpu.x86.general.1c2g"
  } ]
}
```

- Update the scheduling policy of the SparkJob endpoint.

```
PUT /v2/workspaces/{workspace_id}/endpoints/{endpoint_id}

{
  "description" : "Updated description of the SparkJob endpoint.",
  "engine" : {
    "type" : "SparkJob",
    "spark_config" : { },
    "scheduling_config" : {
      "max_concurrent_jobs" : 300,
      "scheduling_policy" : "RANDOM"
    }
  },
  "capacity" : [ {
    "type" : "CPU",
    "maximum_capacity" : 1000,
    "minimum_capacity" : 0,
    "use_ondemand_resource" : false,
    "spec_code" : "aidatalake.cpu.x86.general.1c2g"
  } ]
}
```

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Example Responses

Status code: 200

- Update the description of an AuraJobV2 endpoint and return the updated endpoint information.


```
{
  "id" : "0b5633ba2b904511ad514346f4d23d4b",
  "name" : "aura-job-sune",
  "display_name" : "aura-job-endpoint-2",
  "description" : "Updated description.",
  "status" : "RUNNING",
  "engine" : {
    "type" : "AuraJobV2",
    "worker_group_config" : [ {
      "name" : "WorkerGroup-wpif",
      "spec_code" : "aidatalake.cpu.x86.general.1c4g",
      "cpu" : 1000,
      "memory" : 2048,
      "gpu" : 0,
      "npu" : 0,
      "image" : {
        "id" : "94499750-bab9-4f51-bcd7-53ef6bf3a64b",
        "version_id" : "35e2204c-a915-4e4f-92f3-a0c7f8ffaabb"
      }
    } ],
    "staging_config" : {
      "obs" : {
        "bucket_name" : "1316265"
      }
    },
    "storages_config" : {
      "files" : [ {
        "storage_id" : "0df94743-6210-4134-bc46-acf3b46d9705"
      } ]
    }
  },
  "resource_type" : "RESERVED",
  "compute_id" : "00030bf1-4466-4c84-b32d-f601b136f03b",
  "capacity" : [ {
    "type" : "CPU",
    "maximum_capacity" : 10,
    "minimum_capacity" : 0,
    "use_ondemand_resource" : false,
    "spec_code" : "aidatalake.cpu.x86.general.1c4g"
  } ],
  "create_time" : "2025-01-10T03:37:12.000+00:00",
  "update_time" : "2025-01-10T03:37:12.000+00:00",
  "creator" : {
    "domain_name" : "test",
    "domain_id" : "0676610f3a0a4c2c80c50bea7ddf18c1",
    "user_id" : "019e19fb78887b57b2f6c4174cd5a002",
    "user_name" : "developer"
  },
  "lts_config" : {
    "enable" : false
  },
  "tags" : [ {
    "key" : "test",
    "value" : "ai"
  } ]
}
```


- The cluster configuration and automatic stop policy of the SparkSql endpoint are updated, and the updated endpoint information is returned.


```
{
  "id" : "1a2b3c4d5e6f7890abcdef1234567890",
  "name" : "spark-sql-test",
```


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```
"display_name" : "spark-sql-test",
"description" : "Updated description of the SparkSql endpoint.",
"status" : "RUNNING",
"engine" : {
  "type" : "SparkSql",
  "spark_config" : { },
  "cluster_config" : {
    "aging_time" : 6,
    "auto_stop_config" : {
      "enabled" : true,
      "idle_timeout_minutes" : 10
    },
    "driver_resource_spec" : {
      "cpu" : 4000,
      "memory" : 32768
    },
    "executor_resource_spec" : {
      "cpu" : 4000,
      "memory" : 32768,
      "min_executor_numbers" : 2,
      "max_executor_numbers" : 8
    },
    "min_clusters" : 0,
    "max_clusters" : 6,
    "max_cluster_concurrent_queries" : 16
  },
  "max_endpoint_concurrent_queries" : 300
},
"resource_type" : "RESERVED",
"compute_id" : "0150a336-dda9-431c-9ef1-af02ec424a5e",
"capacity" : [ {
  "type" : "CPU",
  "maximum_capacity" : 1000,
  "minimum_capacity" : 0,
  "use_ondemand_resource" : false,
  "spec_code" : "aidatalake.cpu.x86.general.1c2g"
} ],
"create_time" : "2025-01-10T03:37:12.000+00:00",
"update_time" : "2025-01-10T03:37:12.000+00:00",
"creator" : {
  "domain_name" : "test",
  "domain_id" : "0676610f3a0a4c2c80c50bea7ddf18c1",
  "user_id" : "019e19fb78887b57b2f6c4174cd5a002",
  "user_name" : "developer"
},
"tags" : [ {
  "key" : "test",
  "value" : "ai"
} ]
}
```


- The scheduling policy of the SparkJob endpoint is updated, and the updated endpoint information is returned.


```
{
  "id" : "2b3c4d5e6f7890abcdef1234567890ab",
  "name" : "spark-job-test",
  "display_name" : "spark-job-test",
  "description" : "Updated description of the SparkJob endpoint.",
  "status" : "RUNNING",
  "engine" : {
    "type" : "SparkJob",
    "spark_config" : { },
    "scheduling_config" : {
      "max_concurrent_jobs" : 300,
      "scheduling_policy" : "RANDOM"
    }
  },
  "resource_type" : "RESERVED",
  "compute_id" : "0150a336-dda9-431c-9ef1-af02ec424a5e",
```


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```
 "capacity" : [ {
   "type" : "CPU",
   "maximum_capacity" : 1000,
   "minimum_capacity" : 0,
   "use_ondemand_resource" : false,
   "spec_code" : "aidatalake.cpu.x86.general.1c2g"
 } ],
 "create_time" : "2025-01-10T03:37:12.000+00:00",
 "update_time" : "2025-01-10T03:37:12.000+00:00",
 "creator" : {
   "domain_name" : "test",
   "domain_id" : "0676610f3a0a4c2c80c50bea7ddf18c1",
   "user_id" : "019e19fb78887b57b2f6c4174cd5a002",
   "user_name" : "developer"
 },
 "tags" : [ {
   "key" : "test",
   "value" : "ai"
 } ]
}
```


Status code: 400


```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```


Status code: 401


```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```


Status code: 403


```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```


Status code: 404


```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```


Status code: 500


```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```


Status Codes

Status Code	Description
200	Request submitted.

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Status Code	Description
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
500	Internal server error.

13.8 Deleting an Endpoint

Function

This API is used to delete an endpoint. This API is asynchronous. You can obtain the operation result by calling the **Querying Endpoint Details** API.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/workspaces/{workspace_id}/endpoints/{endpoint_id}

Table 13-302 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
endpoint_id	Yes	String	**Definition**: Endpoint ID. You can obtain the endpoint ID by calling the **Listing Endpoints** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Table 13-303 Query Parameters

Parameter	Mandatory	Type	Description
force	No	Boolean	**Definition**: Forcible deletion. **Constraints**: If this parameter is set to **true**, the resource is forcibly deleted in any case. **Range** • **true**: Forced deletion. • **false**: Non-forcible deletion. **Default Value**: **false**

Request Parameters

Table 13-304 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

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Response Parameters

Status code: 200

Table 13-305 Response body parameters

Parameter	Type	Description
endpoint_id	String	**Definition**: Endpoint ID. **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

Status code: 400

Table 13-306 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 13-307 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

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Table 13-308 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 13-309 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 13-310 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Delete an endpoint under a specified workspace.

```
DELETE /v2/workspaces/{workspace_id}/endpoints/{endpoint_id}
```

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Example Responses

Status code: 200

```
{
  "endpoint_id" : "ac8111bf-3601-4905-8ddd-b41d3e636a4e"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request submitted.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
500	Internal server error.

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14 Ray Federation Endpoint Management

14.1 Listing Ray Federation Endpoints

Function

This API is used to list Ray Federation endpoints in a workspace. This API is synchronous.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/ray-federations

Table 14-1 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Table 14-2 Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	**Definition**: Page offset. **Constraints**: N/A **Range**: 0 to 10000. **Default Value**: **0**.
limit	No	Integer	**Definition**: Page size. **Constraints**: N/A **Range**: 1 to 1000. **Default Value**: **100**.
name	No	String	**Definition**: Ray Federation endpoint name, for fuzzy query. **Constraints**: N/A **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a letter and end with a letter or digit. **Default Value**: N/A

Request Parameters

Table 14-3 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

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Response Parameters

Status code: 200

Table 14-4 Response body parameters

Parameter	Type	Description
total	Integer	**Definition**: Total number of Ray Federation endpoint records. **Range**: An integer greater than or equal to 0.
ray_federations	Array of **V2RayFederationInfo** objects	**Definition**: Ray Federation endpoint list.

Table 14-5 V2RayFederationInfo

Parameter	Type	Description
id	String	**Definition**: Ray Federation endpoint ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: Ray Federation endpoint name. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a letter and end with a letter or digit.
display_name	String	**Definition**: Ray Federation endpoint display name. **Range**: 1 to 63 characters. Only letters, digits, and hyphens (-) are allowed.
description	String	**Definition**: Ray Federation endpoint description. **Range**: The following characters are not allowed: exclamation marks (!), less-than signs (<), greater-than signs (>), equal signs (=), ampersands (&), double quotation marks (""), and single quotation marks ('). 0 to 1,024 characters.

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Parameter	Type	Description
status	String	**Definition**: Ray Federation endpoint status. **Range** • **RUNNING**: Running. • **LIMITED_AVAILABLE**: Some endpoints are available. • **FAULT**: Fault. • **WAITING**: Waiting.
error	**Error** object	**Definition**: Text message content returned on failure, including the error code and error description.
ray_cluster_list	Array of **V2RayFederationRayClusterResponse** objects	**Definition**: RayCluster endpoint information list.
create_time	String	**Definition**: Resource creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
update_time	String	**Definition**: Resource update time, in UTC, in ISO 8601 format, for example, **2025-01-10T03:37:12.000+00:00**. **Range**: N/A
creator	**Creator** object	**Definition**: Resource owner information.

Table 14-6 Error

Parameter	Type	Description
error_code	String	**Definition**: Error code on failure. **Range**: 0 to 36 characters. Only letters, digits, periods (.), and underscores (_) are allowed.
error_msg	String	**Definition**: Error message on failure. **Range**: 0 to 1,024 characters. Only letters, digits, and special characters are allowed.

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Table 14-7 V2RayFederationRayClusterResponse

Parameter	Type	Description
id	String	**Definition**: RayCluster endpoint ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: RayCluster endpoint name. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a letter and end with a letter or digit.
status	String	**Definition**: RayCluster endpoint status. **Range** • **CREATING**: Creating. • **RUNNING**: Running. • **CREATE_FAILED**: Creation failed. • **DELETING**: Deleting. • **DELETED**: Deleted. • **UPDATING**: Updating. • **UPDATE_FAILED**: Update failed. • **DELETE_FAILED**: Deletion failed. • **FROZEN**: Frozen. • **INACTIVE**: Inactive. • **ON_DEMAND_FROZEN**: On-demand frozen. • **ABNORMAL**: Abnormal.

Table 14-8 Creator

Parameter	Type	Description
domain_name	String	**Definition**: Tenant name. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.
domain_id	String	**Definition**: Tenant ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.
user_name	String	**Definition**: Username. **Range**: 1 to 64 characters. Only letters, digits, and underscores (_) are allowed.

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Parameter	Type	Description
user_id	String	**Definition**: User ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.

Status code: 400

Table 14-9 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 14-10 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 14-11 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 14-12 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 14-13 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

List Ray Federation endpoints in a specified workspace.

```
GET /v2/workspaces/{workspace_id}/ray-federations
```

Example Responses

Status code: 200

```
{
  "total" : 1,
  "ray_federations" : [ {
    "id" : "0b5633ba2b904511ad514346f4d23d4b",
    "name" : "ray-federation-name",
    "display_name" : "ray-federation-display-name",
    "description" : "This is a ray federation description.",
    "status" : "RUNNING",
    "error" : { },
    "ray_cluster_list" : [ {
      "id" : "58af79bf-ba1f-433f-bdf8-989661106b2f",
      "name" : "ray-cluster-example",
      "status" : "RUNNING"
    } ],
    "create_time" : "2025-01-10T03:37:12.000+00:00",
    "update_time" : "2025-01-10T03:37:12.000+00:00",
    "creator" : {
      "domain_name" : "test",
      "domain_id" : "0676610f3a0a4c2c80c50bea7ddf18c1",
      "user_id" : "019e19fb78887b57b2f6c4174cd5a002",
      "user_name" : "developer"
    }
  } ]
}
```


Status code: 400


```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```


Status code: 401


```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```


Status code: 403


```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```


Status code: 404


```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```


Status code: 500


```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```


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Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
500	Internal server error.

14.2 Creating a Ray Federation Endpoint

Function

This API is used to create a Ray Federation endpoint. This API is synchronous.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/workspaces/{workspace_id}/ray-federations

Table 14-14 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Request Parameters

Table 14-15 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Table 14-16 Request body parameters

Parameter	Mandatory	Type	Description
name	No	String	**Definition**: Ray Federation endpoint name. **Constraints**: N/A **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a letter and end with a letter or digit. **Default Value**: N/A
display_name	No	String	**Definition**: Ray Federation endpoint display name. **Constraints**: N/A **Range**: 1 to 63 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
description	No	String	**Definition**: Ray Federation endpoint description. **Constraints**: N/A **Range**: 0 to 1,024 characters. Exclamation marks (!), less-than signs (<), greater-than signs (>), equal signs (=), ampersands (&), double quotation marks ("), single quotation marks ('), at signs (@), number signs (#), percent signs (%), semicolons (;), left parentheses ((), right parentheses ()), vertical bars (|), asterisks (*), and backslashes () are not allowed. **Default Value**: N/A
ray_cluster_list	No	Array of **V2RayFederationRayClusterRequest** objects	**Definition**: RayCluster endpoint information list. **Constraints**: Each RayCluster can belong to only one Ray Federation endpoint. **Range**: 0 to 50. **Default Value**: N/A

Table 14-17 V2RayFederationRayClusterRequest

Parameter	Mandatory	Type	Description
id	Yes	String	**Definition**: RayCluster endpoint ID, which can be obtained by calling the **Listing Ray Federation Endpoints** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Response Parameters

Status code: 200

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Table 14-18 Response body parameters

Parameter	Type	Description
id	String	**Definition**: Ray Federation endpoint ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: Ray Federation endpoint name. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a letter and end with a letter or digit.
display_name	String	**Definition**: Ray Federation endpoint display name. **Range**: 1 to 63 characters. Only letters, digits, and hyphens (-) are allowed.
description	String	**Definition**: Ray Federation endpoint description. **Range**: The following characters are not allowed: exclamation marks (!), less-than signs (<), greater-than signs (>), equal signs (=), ampersands (&), double quotation marks (""), and single quotation marks ('). 0 to 1,024 characters.
status	String	**Definition**: Ray Federation endpoint status. **Range** • **RUNNING**: Running. • **LIMITED_AVAILABLE**: Some endpoints are available. • **FAULT**: Fault. • **WAITING**: Waiting.
error	**Error** object	**Definition**: Text message content returned on failure, including the error code and error description.
ray_cluster_list	Array of **V2RayFederationRayClusterResponse** objects	**Definition**: RayCluster endpoint information list.

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Parameter	Type	Description
create_time	String	**Definition**: Resource creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
update_time	String	**Definition**: Resource update time, in UTC, in ISO 8601 format, for example, **2025-01-10T03:37:12.000+00:00**. **Range**: N/A
creator	**Creator** object	**Definition**: Resource owner information.

Table 14-19 Error

Parameter	Type	Description
error_code	String	**Definition**: Error code on failure. **Range**: 0 to 36 characters. Only letters, digits, periods (.), and underscores (_) are allowed.
error_msg	String	**Definition**: Error message on failure. **Range**: 0 to 1,024 characters. Only letters, digits, and special characters are allowed.

Table 14-20 V2RayFederationRayClusterResponse

Parameter	Type	Description
id	String	**Definition**: RayCluster endpoint ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: RayCluster endpoint name. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a letter and end with a letter or digit.

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Parameter	Type	Description
status	String	**Definition**: RayCluster endpoint status. **Range** • **CREATING**: Creating. • **RUNNING**: Running. • **CREATE_FAILED**: Creation failed. • **DELETING**: Deleting. • **DELETED**: Deleted. • **UPDATING**: Updating. • **UPDATE_FAILED**: Update failed. • **DELETE_FAILED**: Deletion failed. • **FROZEN**: Frozen. • **INACTIVE**: Inactive. • **ON_DEMAND_FROZEN**: On-demand frozen. • **ABNORMAL**: Abnormal.

Table 14-21 Creator

Parameter	Type	Description
domain_name	String	**Definition**: Tenant name. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.
domain_id	String	**Definition**: Tenant ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.
user_name	String	**Definition**: Username. **Range**: 1 to 64 characters. Only letters, digits, and underscores (_) are allowed.
user_id	String	**Definition**: User ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.

Status code: 400

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Table 14-22 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 14-23 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 14-24 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

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Table 14-25 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 14-26 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Create a Ray Federation endpoint.

```
POST /v2/workspaces/{workspace_id}/ray-federations

{
  "name" : "federation-prod-01",
  "display_name" : "Ray-Federation-endpoint-prod-01.",
  "description" : "Production federation for high-concurrency workloads",
  "ray_cluster_list" : [ {
    "id" : "0b5633ba2b904511ad514346f4d23d4b"
  }, {
    "id" : "1b5633ba2b904511ad514346f4d23d4b"
  } ]
}
```

Example Responses

Status code: 200

```
{
  "id" : "0b5633ba2b904511ad514346f4d23d4b",
  "name" : "federation-prod-01",
  "display_name" : "Ray-Federation-endpoint-prod-01.",
  "description" : "Production federation for high-concurrency workloads.",
```

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```
  "status" : "RUNNING",
  "error" : { },
  "ray_cluster_list" : [ {
    "id" : "0b5633ba2b904511ad514346f4d23d4b",
    "name" : "ray-cluster-example-01",
    "status" : "RUNNING"
  }, {
    "id" : "1b5633ba2b904511ad514346f4d23d4b",
    "name" : "ray-cluster-example-02",
    "status" : "RUNNING"
  } ],
  "create_time" : "2025-01-10T03:37:12.000+00:00",
  "update_time" : "2025-01-10T03:37:12.000+00:00",
  "creator" : {
    "domain_name" : "test",
    "domain_id" : "0676610f3a0a4c2c80c50bea7ddf18c1",
    "user_id" : "019e19fb78887b57b2f6c4174cd5a002",
    "user_name" : "developer"
  }
}
```


Status code: 400


```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```


Status code: 401


```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```


Status code: 403


```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```


Status code: 404


```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```


Status code: 500


```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```


Status Codes

Status Code	Description
200	Ray Federation endpoint created successfully.

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Status Code	Description
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
500	Internal server error.

14.3 Querying Ray Federation Endpoint Details

Function

This API is used to query details of a Ray Federation endpoint. This API is synchronous.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/workspaces/{workspace_id}/ray-federations/{ray_federation_id}

Table 14-27 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
ray_federation_id	Yes	String	**Definition**: Ray Federation endpoint ID, which can be obtained by calling the **Listing Ray Federation Endpoints** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Request Parameters

Table 14-28 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 14-29 Response body parameters

Parameter	Type	Description
id	String	**Definition**: Ray Federation endpoint ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
name	String	**Definition**: Ray Federation endpoint name. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a letter and end with a letter or digit.
display_name	String	**Definition**: Ray Federation endpoint display name. **Range**: 1 to 63 characters. Only letters, digits, and hyphens (-) are allowed.
description	String	**Definition**: Ray Federation endpoint description. **Range**: The following characters are not allowed: exclamation marks (!), less-than signs (<), greater-than signs (>), equal signs (=), ampersands (&), double quotation marks (""), and single quotation marks ('). 0 to 1,024 characters.
status	String	**Definition**: Ray Federation endpoint status. **Range** • **RUNNING**: Running. • **LIMITED_AVAILABLE**: Some endpoints are available. • **FAULT**: Fault. • **WAITING**: Waiting.
error	**Error** object	**Definition**: Text message content returned on failure, including the error code and error description.
ray_cluster_list	Array of **V2RayFederationRayClusterResponse** objects	**Definition**: RayCluster endpoint information list.
create_time	String	**Definition**: Resource creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A

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Parameter	Type	Description
update_time	String	**Definition**: Resource update time, in UTC, in ISO 8601 format, for example, **2025-01-10T03:37:12.000+00:00**. **Range**: N/A
creator	**Creator** object	**Definition**: Resource owner information.

Table 14-30 Error

Parameter	Type	Description
error_code	String	**Definition**: Error code on failure. **Range**: 0 to 36 characters. Only letters, digits, periods (.), and underscores (_) are allowed.
error_msg	String	**Definition**: Error message on failure. **Range**: 0 to 1,024 characters. Only letters, digits, and special characters are allowed.

Table 14-31 V2RayFederationRayClusterResponse

Parameter	Type	Description
id	String	**Definition**: RayCluster endpoint ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: RayCluster endpoint name. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a letter and end with a letter or digit.

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Parameter	Type	Description
status	String	**Definition**: RayCluster endpoint status. **Range** • **CREATING**: Creating. • **RUNNING**: Running. • **CREATE_FAILED**: Creation failed. • **DELETING**: Deleting. • **DELETED**: Deleted. • **UPDATING**: Updating. • **UPDATE_FAILED**: Update failed. • **DELETE_FAILED**: Deletion failed. • **FROZEN**: Frozen. • **INACTIVE**: Inactive. • **ON_DEMAND_FROZEN**: On-demand frozen. • **ABNORMAL**: Abnormal.

Table 14-32 Creator

Parameter	Type	Description
domain_name	String	**Definition**: Tenant name. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.
domain_id	String	**Definition**: Tenant ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.
user_name	String	**Definition**: Username. **Range**: 1 to 64 characters. Only letters, digits, and underscores (_) are allowed.
user_id	String	**Definition**: User ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.

Status code: 400

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Table 14-33 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 14-34 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 14-35 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

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Table 14-36 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 14-37 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Query details of a specified Ray Federation endpoint.

```
GET /v2/workspaces/{workspace_id}/ray-federations/{ray_federation_id}
```

Example Responses

Status code: 200

```
{
  "id" : "0b5633ba2b904511ad514346f4d23d4b",
  "name" : "ray-federation-name",
  "display_name" : "ray-federation-display-name",
  "description" : "This is a ray federation description.",
  "status" : "RUNNING",
  "error" : { },
  "ray_cluster_list" : [ {
    "id" : "58af79bf-ba1f-433f-bdf8-989661106b2f",
    "name" : "ray-cluster-example",
    "status" : "RUNNING"
  } ],
  "create_time" : "2025-01-10T03:37:12.000+00:00",
  "update_time" : "2025-01-10T03:37:12.000+00:00",
  "creator" : {
    "domain_name" : "test",
```

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```
    "domain_id" : "0676610f3a0a4c2c80c50bea7ddf18c1",
    "user_id" : "019e19fb78887b57b2f6c4174cd5a002",
    "user_name" : "developer"
  }
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
500	Internal server error.

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14.4 Updating a Ray Federation Endpoint

Function

This API is used to update a Ray Federation endpoint. This API is synchronous.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v2/workspaces/{workspace_id}/ray-federations/{ray_federation_id}

Table 14-38 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
ray_federation_id	Yes	String	**Definition**: Ray Federation endpoint ID, which can be obtained by calling the **Listing Ray Federation Endpoints** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Request Parameters

Table 14-39 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Table 14-40 Request body parameters

Parameter	Mandatory	Type	Description
name	No	String	**Definition**: Ray Federation endpoint name. **Constraints**: The name cannot be modified. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a letter and end with a letter or digit. **Default Value**: N/A
display_name	No	String	**Definition**: Ray Federation endpoint display name. **Constraints**: N/A **Range**: 1 to 63 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
description	No	String	**Definition**: Ray Federation endpoint description. **Constraints**: N/A **Range**: 0 to 1,024 characters. Exclamation marks (!), less-than signs (<), greater-than signs (>), equal signs (=), ampersands (&), double quotation marks ("), single quotation marks ('), at signs (@), number signs (#), percent signs (%), semicolons (;), left parentheses ((), right parentheses ()), vertical bars (|), asterisks (*), and backslashes () are not allowed. **Default Value**: N/A
ray_cluster_list	No	Array of **V2RayFederationRayClusterRequest** objects	**Definition**: RayCluster endpoint list. The value will overwrite the existing list. **Constraints**: Each RayCluster can belong to only one Ray Federation endpoint. **Range**: 0 to 50. **Default Value**: N/A

Table 14-41 V2RayFederationRayClusterRequest

Parameter	Mandatory	Type	Description
id	Yes	String	**Definition**: RayCluster endpoint ID, which can be obtained by calling the **Listing Ray Federation Endpoints** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Response Parameters

Status code: 200

Table 14-42 Response body parameters

Parameter	Type	Description
id	String	**Definition**: Ray Federation endpoint ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: Ray Federation endpoint name. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a letter and end with a letter or digit.
display_name	String	**Definition**: Ray Federation endpoint display name. **Range**: 1 to 63 characters. Only letters, digits, and hyphens (-) are allowed.
description	String	**Definition**: Ray Federation endpoint description. **Range**: The following characters are not allowed: exclamation marks (!), less-than signs (<), greater-than signs (>), equal signs (=), ampersands (&), double quotation marks (""), and single quotation marks ('). 0 to 1,024 characters.
status	String	**Definition**: Ray Federation endpoint status. **Range** • **RUNNING**: Running. • **LIMITED_AVAILABLE**: Some endpoints are available. • **FAULT**: Fault. • **WAITING**: Waiting.
error	**Error** object	**Definition**: Text message content returned on failure, including the error code and error description.

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Parameter	Type	Description
ray_cluster_list	Array of **V2RayFederationRayClusterResponse** objects	**Definition**: RayCluster endpoint information list.
create_time	String	**Definition**: Resource creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
update_time	String	**Definition**: Resource update time, in UTC, in ISO 8601 format, for example, **2025-01-10T03:37:12.000+00:00**. **Range**: N/A
creator	**Creator** object	**Definition**: Resource owner information.

Table 14-43 Error

Parameter	Type	Description
error_code	String	**Definition**: Error code on failure. **Range**: 0 to 36 characters. Only letters, digits, periods (.), and underscores (_) are allowed.
error_msg	String	**Definition**: Error message on failure. **Range**: 0 to 1,024 characters. Only letters, digits, and special characters are allowed.

Table 14-44 V2RayFederationRayClusterResponse

Parameter	Type	Description
id	String	**Definition**: RayCluster endpoint ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: RayCluster endpoint name. **Range**: 1 to 63 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a letter and end with a letter or digit.

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Parameter	Type	Description
status	String	**Definition**: RayCluster endpoint status. **Range** • **CREATING**: Creating. • **RUNNING**: Running. • **CREATE_FAILED**: Creation failed. • **DELETING**: Deleting. • **DELETED**: Deleted. • **UPDATING**: Updating. • **UPDATE_FAILED**: Update failed. • **DELETE_FAILED**: Deletion failed. • **FROZEN**: Frozen. • **INACTIVE**: Inactive. • **ON_DEMAND_FROZEN**: On-demand frozen. • **ABNORMAL**: Abnormal.

Table 14-45 Creator

Parameter	Type	Description
domain_name	String	**Definition**: Tenant name. **Range**: 1 to 64 characters. Only letters, digits, and special characters are allowed.
domain_id	String	**Definition**: Tenant ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.
user_name	String	**Definition**: Username. **Range**: 1 to 64 characters. Only letters, digits, and underscores (_) are allowed.
user_id	String	**Definition**: User ID. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.

Status code: 400

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Table 14-46 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 14-47 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 14-48 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

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Table 14-49 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 14-50 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Update the Ray Federation endpoint name and RayCluster endpoint configuration.

```
PUT /v2/workspaces/{workspace_id}/ray-federations/{ray_federation_id}

{
  "name" : "federation-prod-01-updated",
  "display_name" : "Ray-Federation-endpoint-prod-01-updated.",
  "description" : "Updated description",
  "ray_cluster_list" : [ {
    "id" : "0b5633ba2b904511ad514346f4d23d4b"
  }, {
    "id" : "1b5633ba2b904511ad514346f4d23d4b"
  } ]
}
```

Example Responses

Status code: 200

```
{
  "id" : "0b5633ba2b904511ad514346f4d23d4b",
  "name" : "federation-prod-01-updated",
  "display_name" : "Ray-Federation-endpoint-prod-01-updated.",
  "description" : "Updated description.",
```

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```
  "status" : "RUNNING",
  "error" : { },
  "ray_cluster_list" : [ {
    "id" : "0b5633ba2b904511ad514346f4d23d4b",
    "name" : "ray-cluster-example-01",
    "status" : "RUNNING"
  }, {
    "id" : "1b5633ba2b904511ad514346f4d23d4b",
    "name" : "ray-cluster-example-02",
    "status" : "RUNNING"
  } ],
  "create_time" : "2025-01-10T03:37:12.000+00:00",
  "update_time" : "2025-01-10T03:37:12.000+00:00",
  "creator" : {
    "domain_name" : "test",
    "domain_id" : "0676610f3a0a4c2c80c50bea7ddf18c1",
    "user_id" : "019e19fb78887b57b2f6c4174cd5a002",
    "user_name" : "developer"
  }
}
```


Status code: 400


```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```


Status code: 401


```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```


Status code: 403


```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```


Status code: 404


```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```


Status code: 500


```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```


Status Codes

Status Code	Description
200	Request succeeded.

Status Code	Description
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
500	Internal server error.

14.5 Deleting a Ray Federation Endpoint

Function

This API is used to delete a Ray Federation endpoint. This API is synchronous.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/workspaces/{workspace_id}/ray-federations/{ray_federation_id}

Table 14-51 Path Parameters

Parameter	Mandatory	Type	Description
workspace_id	Yes	String	**Definition**: Workspace ID, which can be obtained by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
ray_federation_id	Yes	String	**Definition**: Ray Federation endpoint ID, which can be obtained by calling the **Listing Ray Federation Endpoints** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Request Parameters

Table 14-52 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 14-53 Response body parameters

Parameter	Type	Description
ray_federation_id	String	**Definition**: Ray Federation endpoint ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Status code: 400

Table 14-54 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 14-55 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 14-56 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

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Table 14-57 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 14-58 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Delete a specified Ray Federation endpoint.

```
DELETE /v2/workspaces/{workspace_id}/ray-federations/{ray_federation_id}
```

Example Responses

Status code: 200

```
{
  "ray_federation_id" : "4e3a73ad-30a0-4379-a997-78e9a8112aa7"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
```

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```
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Ray Federation endpoint deleted successfully.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
500	Internal server error.

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15 Tenant Image Management

15.1 Registering a Custom Image

Function

This API is used to register a custom image. You can use this API to register an image from an external image repository to a tenant for subsequent use. Image versions can be added with the **Adding a Version to a Custom Image** API. This API is synchronous.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/images

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Request Parameters

Table 15-1 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Table 15-2 Request body parameters

Parameter	Mandatory	Type	Description
image_url	Yes	String	**Definition**: URL of the custom image, consisting of the image registry address, image namespace, image name, and image version. **Constraints**: N/A **Range**: 1 to 2,000 characters. Container image address consisting of letters, digits, periods (.), slashes (/), colons (:), underscores (_), and hyphens (-). **Default Value**: N/A

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Parameter	Mandatory	Type	Description
category	Yes	String	**Definition**: Custom image category. **Constraints**: N/A **Range** • **RAY_BASIC**: Custom image built on Ray. • **SPARK_JOB**: Custom image built on SparkJob. • **SPARK_SQL**: Custom image built on SparkSql. • **FLINK_JOB**: Custom image built on FlinkJob. • **AURA_JOB**: Custom image built on AuraJobV2. **Default Value**: N/A
architectures	No	Array of strings	**Definition**: Architecture list supported by the image. The values are **x86_64** (x86 architecture) and **aarch64** (Arm architecture). If this parameter is not specified, the default value is **x86_64**. **Constraints**: N/A
type	Yes	String	**Definition**: Version type. **Constraints**: N/A **Range** • **STABLE**: Stable version. • **RECOMMEND**: Recommended version. • **BETA**: Beta version. **Default Value**: N/A
container_softwares	No	Array of **ContainerSoftware** objects	**Definition**: Software list included in the custom image. Each element is a ContainerSoftware object containing the software name and version. **Constraints**: 0 to 100 software items.

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Parameter	Mandatory	Type	Description
description	No	String	**Definition**: Description of the custom image. **Constraints**: N/A **Range**: 0 to 2,000 characters. Exclamation marks (!), less-than signs (<), greater-than signs (>), equal signs (=), ampersands (&), double quotation marks ("), single quotation marks ('), at signs (@), number signs (#), percent signs (%), semicolons (;), left parentheses ((), right parentheses ()), vertical bars (|), asterisks (*), and backslashes () are not allowed. **Default Value**: N/A
base_image_id	No	String	**Definition**: Base image ID. The ID can be obtained by calling the **Listing Custom Images** API. **Constraints**: This parameter is mandatory for Spark images. **Range**: 0 to 64 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
base_image_version_id	No	String	**Definition**: Base image version ID. The ID can be obtained by calling the **Listing Custom Image Versions** API. **Constraints**: This parameter is mandatory for Spark images. **Range**: 0 to 64 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Table 15-3 ContainerSoftware

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Software name. **Constraints**: N/A **Range**: 2 to 32 characters. Only letters, digits, periods (.), underscores (_), and hyphens (-) are allowed. **Default Value**: N/A
version	Yes	String	**Definition**: Software version. **Constraints**: N/A **Range**: 2 to 32 characters. Only letters, digits, periods (.), underscores (_), and hyphens (-) are allowed. **Default Value**: N/A

Response Parameters

Status code: 200

Table 15-4 Response body parameters

Parameter	Type	Description
image_id	String	**Definition**: Image ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
category	String	**Definition**: Image category. **Range** • **RAY_BASIC**: Custom image built on Ray. • **SPARK_JOB**: Custom image built on SparkJob. • **SPARK_SQL**: Custom image built on SparkSql. • **FLINK_JOB**: Custom image built on FlinkJob. • **AURA_JOB**: Custom image built on AuraJobV2.

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Parameter	Type	Description
image_registry	String	**Definition**: Image domain name. **Range**: 0 to 255 characters. Only letters, digits, periods (.), and hyphens (-) are allowed.
image_namespace	String	**Definition**: Image namespace. **Range**: 0 to 64 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
image_name	String	**Definition**: Image name. **Range**: 0 to 128 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
visibility	String	**Definition**: Visibility. **Range** • **PRIVATE**: Private, created by users. • **PUBLIC**: Query all public objects, including those created by other users.

Status code: 400

Table 15-5 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 15-6 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 15-7 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 15-8 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

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Table 15-9 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 15-10 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Register a custom image. The description is **Ray custom image** and the image category is **RAY_BASIC**.

```
POST /v2/images

{
  "image_url" : "xxx.cn-north-4.example.com/test-namespace/test-image:v1",
  "category" : "RAY_BASIC",
  "type" : "BETA",
  "architectures" : [ "x86_64" ],
  "container_softwares" : [ {
    "name" : "jdk",
    "version" : "21"
  } ],
  "description" : "Ray custom image"
}
```

Example Responses

Status code: 200

```
{
  "image_id" : "90a827a1-ca72-4f3a-9e2d-774f945f22ac",
  "category" : "RAY_BASIC",
```

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```
  "image_registry" : "xxx.cn-north-4.example.com",
  "image_namespace" : "test-namespace",
  "image_name" : "test-image",
  "visibility" : "PRIVATE"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.

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Status Code	Description
404	Resource not found.
408	Request timeout.
500	Internal server error.

15.2 Listing Custom Images

Function

This API is used to list custom images. You can query the created custom images. This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/images

Table 15-11 Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	**Definition**: Page offset. **Constraints**: N/A **Range**: 0 to 10000. **Default Value**: **0**.
limit	No	Integer	**Definition**: Page size. **Constraints**: N/A **Range**: 1 to 1000. **Default Value**: **100**.
sort_by	No	String	**Definition**: Sorting field. **Constraints**: N/A **Range** • **CREATE_TIME**: Creation time. • **UPDATE_TIME**: Update time. **Default Value**: **CREATE_TIME**

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Parameter	Mandatory	Type	Description
order_by	No	String	**Definition**: Sorting method. **Constraints**: N/A **Range** • **ASC**: Ascending order. • **DESC**: Descending order. **Default Value**: **DESC**.
id	No	String	**Definition**: Filter by image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
category	No	String	**Definition**: Filter by custom image category. **Constraints**: N/A **Range** • **RAY_BASIC**: Custom image built on Ray. • **SPARK_JOB**: Custom image built on SparkJob. • **SPARK_SQL**: Custom image built on SparkSql. • **FLINK_JOB**: Custom image built on FlinkJob. • **AURA_JOB**: Custom image built on AuraJobV2. **Default Value**: N/A
namespace	No	String	**Definition**: Search by image namespace. **Constraints**: N/A **Range**: 0 to 64 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
name	No	String	**Definition**: Search by image name. **Constraints**: N/A **Range**: 0 to 128 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed. **Default Value**: N/A
visibility	No	String	**Definition**: Visibility search parameter. **Constraints**: N/A **Range** • **PRIVATE**: Private, created by users. • **PUBLIC**: Query all public objects, including those created by other users. • **ALL**: All. **Default Value**: If left empty, no filtering is applied. Images under the current workspace include **PRIVATE** and **PUBLIC**, excluding those created by other users.

Request Parameters

Table 15-12 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

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Response Parameters

Status code: 200

Table 15-13 Response body parameters

Parameter	Type	Description
total	Integer	**Definition**: Total number of matching records. **Range**: 0 to 10000.
images	Array of **V2ImageInfo** objects	**Definition**: Custom image list, where each element is a V2ImageInfo object. The array length cannot exceed 10,000.

Table 15-14 V2ImageInfo

Parameter	Type	Description
id	String	**Definition**: Image ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
image_name	String	**Definition**: Image name. **Range**: 0 to 128 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
category	String	**Definition**: Image category. **Range** • **RAY_BASIC**: Custom image built on Ray. • **SPARK_JOB**: Custom image built on SparkJob. • **SPARK_SQL**: Custom image built on SparkSql. • **FLINK_JOB**: Custom image built on FlinkJob. • **AURA_JOB**: Custom image built on AuraJobV2.

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Parameter	Type	Description
image_registry	String	**Definition**: Image domain name. **Range**: 0 to 255 characters. Only letters, digits, periods (.), and hyphens (-) are allowed.
image_namespace	String	**Definition**: Image namespace. **Range**: 0 to 64 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
version_count	Integer	**Definition**: Number of image versions. **Range**: The value must be greater than or equal to 0.
create_time	String	**Definition**: Creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
update_time	String	**Definition**: Update time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
visibility	String	**Definition**: Visibility. **Range** • **PRIVATE**: Private, created by users. • **PUBLIC**: Query all public objects, including those created by other users.
description	String	**Definition**: Image description. **Range**: 0 to 2,000 characters. Only letters, digits, and common symbols are allowed. Characters such as exclamation mark (!), less-than sign (<), greater-than sign (>), equal sign (=), ampersand (&), double quotation marks ("), and single quotation marks (') are not allowed.
instruction	String	**Definition**: Public image usage description. **Range**: 0 to 20,000 characters. Only letters, digits, and common symbols are allowed.

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Status code: 400

Table 15-15 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 15-16 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 15-17 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

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Table 15-18 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

Table 15-19 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 15-20 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

List custom images. View all registered custom images of the current tenant.

```
GET /v2/images
```

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Example Responses

Status code: 200


```
{
  "total" : 1,
  "images" : [ {
    "id" : "90a827a1-ca72-4f3a-9e2d-774f945f22ac",
    "image_name" : "test-image",
    "category" : "RAY_BASIC",
    "image_registry" : "xxx.cn-north-4.example.com",
    "image_namespace" : "test-namespace",
    "version_count" : 3,
    "create_time" : "2025-01-10T03:37:12.000+00:00",
    "update_time" : "2025-01-11T03:37:12.000+00:00",
    "visibility" : "PRIVATE",
    "description" : "test image"
  } ]
}
```


Status code: 400


```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```


Status code: 401


```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```


Status code: 403


```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```


Status code: 404


```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```


Status code: 408


```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```


Status code: 500


```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```


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Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
408	Request timeout.
500	Internal server error.

15.3 Adding a Custom Image Version

Function

This API is used to add a new version to a registered image. This API is synchronous and works with the **Registering a Custom Image** API for image version management.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/images/{image_id}/versions

Table 15-21 Path Parameters

Parameter	Mandatory	Type	Description
image_id	Yes	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Request Parameters

Table 15-22 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Table 15-23 Request body parameters

Parameter	Mandatory	Type	Description
image_url	Yes	String	**Definition**: URL of the custom image, consisting of the image registry address, image namespace, image name, and image version. **Constraints**: N/A **Range**: 1 to 2,000 characters. Container image address consisting of letters, digits, periods (.), slashes (/), colons (:), underscores (_), and hyphens (-). **Default Value**: N/A

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Parameter	Mandatory	Type	Description
category	Yes	String	**Definition**: Custom image category. **Constraints**: N/A **Range** • **RAY_BASIC**: Custom image built on Ray. • **SPARK_JOB**: Custom image built on SparkJob. • **SPARK_SQL**: Custom image built on SparkSql. • **FLINK_JOB**: Custom image built on FlinkJob. • **AURA_JOB**: Custom image built on AuraJobV2. **Default Value**: N/A
architectures	No	Array of strings	**Definition**: Architecture list supported by the image. The values are **x86_64** (x86 architecture) and **aarch64** (Arm architecture). If this parameter is not specified, the default value is **x86_64**. **Constraints**: N/A
type	Yes	String	**Definition**: Version type. **Constraints**: N/A **Range** • **STABLE**: Stable version. • **RECOMMEND**: Recommended version. • **BETA**: Beta version. **Default Value**: N/A
container_softwares	No	Array of **ContainerSoftware** objects	**Definition**: Software list included in the custom image. Each element is a ContainerSoftware object containing the software name and version. **Constraints**: 0 to 100 software items.

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Parameter	Mandatory	Type	Description
description	No	String	**Definition**: Description of the custom image. **Constraints**: N/A **Range**: 0 to 2,000 characters. Exclamation marks (!), less-than signs (<), greater-than signs (>), equal signs (=), ampersands (&), double quotation marks ("), single quotation marks ('), at signs (@), number signs (#), percent signs (%), semicolons (;), left parentheses ((), right parentheses ()), vertical bars (|), asterisks (*), and backslashes () are not allowed. **Default Value**: N/A
base_image_id	No	String	**Definition**: Base image ID. The ID can be obtained by calling the **Listing Custom Images** API. **Constraints**: This parameter is mandatory for Spark images. **Range**: 0 to 64 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
base_image_version_id	No	String	**Definition**: Base image version ID. The ID can be obtained by calling the **Listing Custom Image Versions** API. **Constraints**: This parameter is mandatory for Spark images. **Range**: 0 to 64 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Table 15-24 ContainerSoftware

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Software name. **Constraints**: N/A **Range**: 2 to 32 characters. Only letters, digits, periods (.), underscores (_), and hyphens (-) are allowed. **Default Value**: N/A
version	Yes	String	**Definition**: Software version. **Constraints**: N/A **Range**: 2 to 32 characters. Only letters, digits, periods (.), underscores (_), and hyphens (-) are allowed. **Default Value**: N/A

Response Parameters

Status code: 200

Table 15-25 Response body parameters

Parameter	Type	Description
version_id	String	**Definition**: Image version ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
image_version	String	**Definition**: Image version. **Range**: 2 to 32 characters. Only letters, digits, periods (.), slashes (/), colons (:), underscores (_), and hyphens (-) are allowed.

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Parameter	Type	Description
category	String	**Definition**: Image category. **Range** • **RAY_BASIC**: Custom image built on Ray. • **SPARK_JOB**: Custom image built on SparkJob. • **SPARK_SQL**: Custom image built on SparkSql. • **FLINK_JOB**: Custom image built on FlinkJob. • **AURA_JOB**: Custom image built on AuraJobV2.
image_registry	String	**Definition**: Image domain name. **Range**: 0 to 255 characters. Only letters, digits, periods (.), and hyphens (-) are allowed.
image_namespace	String	**Definition**: Image namespace. **Range**: 0 to 64 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
image_name	String	**Definition**: Image name. **Range**: 0 to 128 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
architectures	Array of strings	**Definition**: List of supported image architectures. Available values: **x86_64** (x86 architecture) and **aarch64** (Arm architecture).
container_softwares	Array of **ContainerSoftware** objects	**Definition**: Image software list, where each element is a ContainerSoftware object containing the software name and version.
status	String	**Definition**: Image version status. **Range** • **AVAILABLE**: Available. • **UNAVAILABLE**: Unavailable. • **UNKNOWN**: Unknown.

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Parameter	Type	Description
type	String	**Definition**: Image version type. **Range** • **STABLE**: Stable version. • **RECOMMEND**: Recommended version. • **BETA**: Beta version.
visibility	String	**Definition**: Image version visibility. **Range** • **PRIVATE**: Private. The image is visible only within the workspace. • **PUBLIC**: Public. The image is visible to all workspaces.
create_time	String	**Definition**: Custom image version creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
update_time	String	**Definition**: Custom image version update time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
description	String	**Definition**: Image version description. **Range**: 0 to 2,000 characters. Only letters, digits, and common symbols are allowed. Characters such as exclamation mark (!), less-than sign (<), greater-than sign (>), equal sign (=), ampersand (&), double quotation marks ("), and single quotation marks (') are not allowed.
base_image_id	String	**Definition**: ID of the associated preset base image. **Range**: 0 to 64 characters. Only letters, digits, and hyphens (-) are allowed.
base_image_version_id	String	**Definition**: Version ID of the associated preset base image. **Range**: 0 to 64 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
image_snapshot	**V2ImageSnapshotInfo** object	**Definition**: Matched image snapshot information. If no snapshot is matched, null is returned.

Table 15-26 ContainerSoftware

Parameter	Type	Description
name	String	**Definition**: Software name. **Range**: 2 to 32 characters. Only letters, digits, periods (.), underscores (_), and hyphens (-) are allowed.
version	String	**Definition**: Software version. **Range**: 2 to 32 characters. Only letters, digits, periods (.), underscores (_), and hyphens (-) are allowed.

Table 15-27 V2ImageSnapshotInfo

Parameter	Type	Description
id	String	**Definition**: Image snapshot record ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
image_id	String	**Definition**: Image ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
image_version_id	String	**Definition**: Image version ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: Image snapshot name (user-specified). **Range**: 1 to 190 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a lowercase letter and end with a lowercase letter or digit.

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Parameter	Type	Description
image_address	String	**Definition**: Full image address (including registry/namespace/name:version). **Range**: 0 to 1,024 characters. Only letters, digits, periods (.), colons (:), slashes (/), and hyphens (-) are allowed.
image_name	String	**Definition**: Image name. **Range**: 0 to 128 characters. Only letters, digits, periods (.), slashes (/), colons (:), underscores (_), and hyphens (-) are allowed.
image_version	String	**Definition**: Image version. **Range**: 0 to 1,024 characters. Only letters, digits, periods (.), colons (:), underscores (_), and hyphens (-) are allowed.
status	String	**Definition**: Image snapshot status. **Range** ● **Creating**: Creating. ● **Available**: Available. ● **Unavailable**: Unavailable.
image_snapshot_size	Integer	**Definition**: Snapshot size, in GiB. **Range**: 20 to 400.
creation_mode	String	**Definition**: Creation method. **Range** ● **Created**: Direct creation. ● **Associated**: Associated with an existing CCI snapshot.
reserved_days	Integer	**Definition**: Image snapshot retention period, in days. The snapshot automatically expires after the retention period. **0** indicates permanent retention. **Range**: 0 to 65,536.

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Parameter	Type	Description
expire_time	String	**Definition**: Image snapshot expiration time. A null value indicates permanent validity. The time is in UTC, in ISO 8601 format (yyyy-MM-dd'T'HH:mm:ss.SSSXXX), for example, **2025-01-10T03:37:12.000+00:00**. **Range**: N/A
failed_message	String	**Definition**: Message indicating why the image snapshot is invalid. **Range**: 0 to 65,535 characters. Only letters, digits, and common symbols are allowed.
create_time	String	**Definition**: Creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
update_time	String	**Definition**: Update time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A

Status code: 400

Table 15-28 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

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Table 15-29 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 15-30 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 15-31 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

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Table 15-32 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Add a new version to an existing image.

```
POST /v2/images/{image_id}/versions

{
  "image_url" : "swr.cn-north-4.myhuaweicloud.com/test-image/spark_job:v1",
  "category" : "SPARK_JOB",
  "type" : "STABLE",
  "architectures" : [ "x86_64" ],
  "container_softwares" : [ {
    "name" : "jdk",
    "version" : "21"
  } ],
  "description" : "test image",
  "base_image_id" : "2b5633ba2b904511ad514346f4d23d4b",
  "base_image_version_id" : "3c6744cb3c015622be65457a5e34de5c"
}
```

Example Responses

Status code: 200

```
{
  "version_id" : "c2533937-101d-4a5b-9c8d-03c2ee815f1d",
  "image_version" : "v1",
  "category" : "SPARK_JOB",
  "image_registry" : "swr.cn-north-4.myhuaweicloud.com",
  "image_namespace" : "test-image",
  "image_name" : "spark_job",
  "architectures" : [ "x86_64" ],
  "container_softwares" : [ {
    "name" : "jdk",
    "version" : "21"
  } ],
  "status" : "AVAILABLE",
  "type" : "STABLE",
  "visibility" : "PRIVATE",
  "create_time" : "2025-01-10T03:37:12.000+00:00",
  "update_time" : "2025-01-10T03:37:12.000+00:00",
  "description" : "test image"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
```

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```
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
500	Internal server error.

15.4 Querying a Custom Image Version

Function

This API is used to query a custom image version. You can query details of a specified image version. This API is synchronous. There are no accompanying APIs or specific scenarios.

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Calling Method

For details, see **Calling APIs**.

URI

GET /v2/images/{image_id}/versions/{version_id}

Table 15-33 Path Parameters

Parameter	Mandatory	Type	Description
image_id	Yes	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
version_id	Yes	String	**Definition**: Image version ID. You can obtain the image version ID by calling the **Listing Custom Image Versions** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Request Parameters

Table 15-34 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 15-35 Response body parameters

Parameter	Type	Description
version_id	String	**Definition**: Image version ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
image_version	String	**Definition**: Image version. **Range**: 2 to 32 characters. Only letters, digits, periods (.), slashes (/), colons (:), underscores (_), and hyphens (-) are allowed.

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Parameter	Type	Description
category	String	**Definition**: Image category. **Range** • **RAY_BASIC**: Custom image built on Ray. • **SPARK_JOB**: Custom image built on SparkJob. • **SPARK_SQL**: Custom image built on SparkSql. • **FLINK_JOB**: Custom image built on FlinkJob. • **AURA_JOB**: Custom image built on AuraJobV2.
image_registry	String	**Definition**: Image domain name. **Range**: 0 to 255 characters. Only letters, digits, periods (.), and hyphens (-) are allowed.
image_namespace	String	**Definition**: Image namespace. **Range**: 0 to 64 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
image_name	String	**Definition**: Image name. **Range**: 0 to 128 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
architectures	Array of strings	**Definition**: List of supported image architectures. Available values: **x86_64** (x86 architecture) and **aarch64** (Arm architecture).
container_softwares	Array of **ContainerSoftware** objects	**Definition**: Image software list, where each element is a ContainerSoftware object containing the software name and version.
status	String	**Definition**: Image version status. **Range** • **AVAILABLE**: Available. • **UNAVAILABLE**: Unavailable. • **UNKNOWN**: Unknown.

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Parameter	Type	Description
type	String	**Definition**: Image version type. **Range** • **STABLE**: Stable version. • **RECOMMEND**: Recommended version. • **BETA**: Beta version.
visibility	String	**Definition**: Image version visibility. **Range** • **PRIVATE**: Private. The image is visible only within the workspace. • **PUBLIC**: Public. The image is visible to all workspaces.
create_time	String	**Definition**: Custom image version creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
update_time	String	**Definition**: Custom image version update time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
description	String	**Definition**: Image version description. **Range**: 0 to 2,000 characters. Only letters, digits, and common symbols are allowed. Characters such as exclamation mark (!), less-than sign (<), greater-than sign (>), equal sign (=), ampersand (&), double quotation marks ("), and single quotation marks (') are not allowed.
base_image_id	String	**Definition**: ID of the associated preset base image. **Range**: 0 to 64 characters. Only letters, digits, and hyphens (-) are allowed.
base_image_version_id	String	**Definition**: Version ID of the associated preset base image. **Range**: 0 to 64 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
image_snapshot	**V2ImageSnapshotInfo** object	**Definition**: Matched image snapshot information. If no snapshot is matched, null is returned.

Table 15-36 ContainerSoftware

Parameter	Type	Description
name	String	**Definition**: Software name. **Range**: 2 to 32 characters. Only letters, digits, periods (.), underscores (_), and hyphens (-) are allowed.
version	String	**Definition**: Software version. **Range**: 2 to 32 characters. Only letters, digits, periods (.), underscores (_), and hyphens (-) are allowed.

Table 15-37 V2ImageSnapshotInfo

Parameter	Type	Description
id	String	**Definition**: Image snapshot record ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
image_id	String	**Definition**: Image ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
image_version_id	String	**Definition**: Image version ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: Image snapshot name (user-specified). **Range**: 1 to 190 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a lowercase letter and end with a lowercase letter or digit.

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Parameter	Type	Description
image_address	String	**Definition**: Full image address (including registry/namespace/name:version). **Range**: 0 to 1,024 characters. Only letters, digits, periods (.), colons (:), slashes (/), and hyphens (-) are allowed.
image_name	String	**Definition**: Image name. **Range**: 0 to 128 characters. Only letters, digits, periods (.), slashes (/), colons (:), underscores (_), and hyphens (-) are allowed.
image_version	String	**Definition**: Image version. **Range**: 0 to 1,024 characters. Only letters, digits, periods (.), colons (:), underscores (_), and hyphens (-) are allowed.
status	String	**Definition**: Image snapshot status. **Range** ● **Creating**: Creating. ● **Available**: Available. ● **Unavailable**: Unavailable.
image_snapshot_size	Integer	**Definition**: Snapshot size, in GiB. **Range**: 20 to 400.
creation_mode	String	**Definition**: Creation method. **Range** ● **Created**: Direct creation. ● **Associated**: Associated with an existing CCI snapshot.
reserved_days	Integer	**Definition**: Image snapshot retention period, in days. The snapshot automatically expires after the retention period. **0** indicates permanent retention. **Range**: 0 to 65,536.

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Parameter	Type	Description
expire_time	String	**Definition**: Image snapshot expiration time. A null value indicates permanent validity. The time is in UTC, in ISO 8601 format (yyyy-MM-dd'T'HH:mm:ss.SSSXXX), for example, **2025-01-10T03:37:12.000+00:00**. **Range**: N/A
failed_message	String	**Definition**: Message indicating why the image snapshot is invalid. **Range**: 0 to 65,535 characters. Only letters, digits, and common symbols are allowed.
create_time	String	**Definition**: Creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
update_time	String	**Definition**: Update time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A

Status code: 400

Table 15-38 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

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Table 15-39 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 15-40 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 15-41 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

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Table 15-42 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Query information about a specified image version.

```
GET /v2/images/{image_id}/versions/{version_id}
```

Example Responses

Status code: 200

```
{
  "version_id" : "7a8b9c0d-1e2f-3a4b-5c6d-7e8f9a0b1c2d",
  "category" : "AURA_JOB",
  "architectures" : [ "x86_64" ],
  "container_softwares" : [ {
    "name" : "jdk",
    "version" : "21"
  } ],
  "image_registry" : "swr.cn-north-4.example.com",
  "image_namespace" : "test-namespace",
  "image_name" : "test-image",
  "image_version" : "v1.0.0",
  "status" : "AVAILABLE",
  "type" : "STABLE",
  "visibility" : "PRIVATE",
  "create_time" : "2025-01-10T03:37:12.000+00:00",
  "update_time" : "2025-01-10T03:37:12.000+00:00",
  "description" : "Test image version."
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
```

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```
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010411",
  "error_msg" : "Image version not found, image ID: b9e48f42-26ba-4be9-b6f0-9de1b048c053, version ID: cb46a24c-b5ec-4134-9f03-195477bdfe03.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
500	Internal server error.

15.5 Deleting a Specified Image Version

Function

This API is used to delete a specified image version. This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/images/{image_id}/versions/{version_id}

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Table 15-43 Path Parameters

Parameter	Mandatory	Type	Description
image_id	Yes	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
version_id	Yes	String	**Definition**: Image version ID. You can obtain the image version ID by calling the **Listing Custom Image Versions** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Request Parameters

Table 15-44 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

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Table 15-45 Response body parameters

Parameter	Type	Description
version_id	String	**Definition**: Image version ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

Status code: 400

Table 15-46 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 15-47 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

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Table 15-48 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 15-49 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

Table 15-50 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

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Table 15-51 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Delete a specific image version that is no longer in use.

```
DELETE /v2/images/{image_id}/versions/{version_id}
```

Example Responses

Status code: 200

```
{
  "version_id" : "cc0ad848-a535-4e7b-9f2a-03a811f72b67"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010411",
  "error_msg" : "Image version not found, image ID: b9e48f42-26ba-4be9-b6f0-9de1b048c053, version ID: cb46a24c-b5ec-4134-9f03-195477bdfe03.",
  "solution_msg" : "Please check whether the image ID and version ID are correct or exist in SWR."
}
```

Status code: 408

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```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
408	Request timeout.
500	Internal server error.

15.6 Deleting All Versions of an Image

Function

This API is used to delete all versions of a specified image. This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/images/{image_id}

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Table 15-52 Path Parameters

Parameter	Mandatory	Type	Description
image_id	Yes	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Request Parameters

Table 15-53 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 15-54 Response body parameters

Parameter	Type	Description
image_id	String	**Definition**: Image ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Status code: 400

Table 15-55 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 15-56 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 15-57 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

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Table 15-58 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 15-59 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Delete an image that is no longer needed.

```
DELETE /v2/images/{image_id}
```

Example Responses

Status code: 200

```
{
  "image_id" : "90a827a1-ca72-4be8-943b-774f945f22ac"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
```

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```
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010288",
  "error_msg" : "The image not exist, image ID: 571d13c6-54a8-470b-aaa2-20c29c362169.",
  "solution_msg" : "Please check whether the image is correct."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
500	Internal server error.

15.7 Querying Image Details

Function

This API is used to query details of a specified image. This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/images/{image_id}

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Table 15-60 Path Parameters

Parameter	Mandatory	Type	Description
image_id	Yes	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Request Parameters

Table 15-61 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 15-62 Response body parameters

Parameter	Type	Description
id	String	**Definition**: Image ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
image_name	String	**Definition**: Image name. **Range**: 0 to 128 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
category	String	**Definition**: Image category. **Range** • **RAY_BASIC**: Custom image built on Ray. • **SPARK_JOB**: Custom image built on SparkJob. • **SPARK_SQL**: Custom image built on SparkSql. • **FLINK_JOB**: Custom image built on FlinkJob. • **AURA_JOB**: Custom image built on AuraJobV2.
image_registry	String	**Definition**: Image domain name. **Range**: 0 to 255 characters. Only letters, digits, periods (.), and hyphens (-) are allowed.
image_namespace	String	**Definition**: Image namespace. **Range**: 0 to 64 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
version_count	Integer	**Definition**: Number of image versions. **Range**: The value must be greater than or equal to 0.
create_time	String	**Definition**: Creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
update_time	String	**Definition**: Update time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A

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Parameter	Type	Description
visibility	String	**Definition**: Visibility. **Range** • **PRIVATE**: Private, created by users. • **PUBLIC**: Query all public objects, including those created by other users.
description	String	**Definition**: Image description. **Range**: 0 to 2,000 characters. Only letters, digits, and common symbols are allowed. Characters such as exclamation mark (!), less-than sign (<), greater-than sign (>), equal sign (=), ampersand (&), double quotation marks ("), and single quotation marks (') are not allowed.
instruction	String	**Definition**: Public image usage description. **Range**: 0 to 20,000 characters. Only letters, digits, and common symbols are allowed.

Status code: 400

Table 15-63 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

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Table 15-64 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 15-65 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 15-66 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

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Table 15-67 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Query details of a specified image. Obtain the complete configuration and metadata of a single image.

```
GET /v2/images/{image_id}
```

Example Responses

Status code: 200

```
{
  "id" : "90a827a1-ca72-4f3a-9e2d-774f945f22ac",
  "image_name" : "test-image",
  "category" : "RAY_BASIC",
  "image_registry" : "swr.cn-north-4.myhuaweicloud.com",
  "image_namespace" : "test-namespace",
  "version_count" : 3,
  "create_time" : "2025-01-10T03:37:12.000+00:00",
  "update_time" : "2025-01-11T03:37:12.000+00:00",
  "visibility" : "PRIVATE",
  "description" : "test image"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

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```
{
  "error_code" : "AIDataLake.00010288",
  "error_msg" : "The image not exist, image ID: 571d13c6-54a8-470b-aaa2-20c29c362169.",
  "solution_msg" : "Please check whether the image is correct."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
500	Internal server error.

15.8 Listing Custom Image Versions

Function

This API is used to list custom image versions. You can query all versions of a specified image. This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/images/{image_id}/versions

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Table 15-68 Path Parameters

Parameter	Mandatory	Type	Description
image_id	Yes	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Table 15-69 Query Parameters

Parameter	Mandatory	Type	Description
limit	No	Integer	**Definition**: Page size. **Constraints**: N/A **Range**: 1 to 1000. **Default Value**: **100**.
offset	No	Integer	**Definition**: Page offset. **Constraints**: N/A **Range**: 0 to 10000. **Default Value**: **0**.
version	No	String	**Definition**: Image version name (tag). **Constraints**: N/A **Range**: 2 to 32 characters. Only letters, digits, hyphens (-), periods (.), and underscores (_) are allowed. **Default Value**: N/A
type	No	String	**Definition**: Image version type. **Constraints**: N/A **Range** • **STABLE**: Stable version. • **RECOMMEND**: Recommended version. • **BETA**: Beta version. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
architectures	No	String	**Definition**: Image architecture. Multiple values are allowed, separated by commas (,). **Constraints**: N/A **Range** • **x86_64**: x86 architecture. • **aarch64**: Arm architecture. **Default Value**: N/A
workspace_id	No	String	**Definition**: Workspace ID, used to filter image versions supported by the workspace. You can obtain the workspace ID by calling the **Obtaining a Workspace ID** API. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
endpoint_id	No	String	**Definition**: Endpoint ID, used to filter image versions supported by the endpoint. You can obtain the endpoint ID by calling the **Listing Endpoints** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
sort_by	No	String	**Definition**: Sorting field. **Constraints**: N/A **Range** • **CREATE_TIME**: Creation time. • **UPDATE_TIME**: Update time. **Default Value**: **CREATE_TIME**

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Parameter	Mandatory	Type	Description
order_by	No	String	**Definition**: Sorting method. **Constraints**: N/A **Range** • **ASC**: Ascending order. • **DESC**: Descending order. **Default Value**: **DESC**.
tenantId	No	String	**Definition**: Tenant ID, which is used to identify a tenant. You can obtain the tenant ID through IAM or the console. For details, see **Obtaining Account, IAM User, Project, User Group, Region, and Agency Information**. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

Request Parameters

Table 15-70 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

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Table 15-71 Response body parameters

Parameter	Type	Description
total	Integer	**Definition**: Total number of custom image version records. **Range**: 0 to 100,000.
image_versions	Array of **V2ImageVersionInfo** objects	**Definition**: Image version list, where each element is a V2ImageVersionInfo object containing the image version ID, version number, image category, architecture, status, and other information.

Table 15-72 V2ImageVersionInfo

Parameter	Type	Description
version_id	String	**Definition**: Image version ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
image_version	String	**Definition**: Image version. **Range**: 2 to 32 characters. Only letters, digits, periods (.), slashes (/), colons (:), underscores (_), and hyphens (-) are allowed.
category	String	**Definition**: Image category. **Range** • **RAY_BASIC**: Custom image built on Ray. • **SPARK_JOB**: Custom image built on SparkJob. • **SPARK_SQL**: Custom image built on SparkSql. • **FLINK_JOB**: Custom image built on FlinkJob. • **AURA_JOB**: Custom image built on AuraJobV2.
image_registry	String	**Definition**: Image domain name. **Range**: 0 to 255 characters. Only letters, digits, periods (.), and hyphens (-) are allowed.

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Parameter	Type	Description
image_namespace	String	**Definition**: Image namespace. **Range**: 0 to 64 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
image_name	String	**Definition**: Image name. **Range**: 0 to 128 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
architectures	Array of strings	**Definition**: List of supported image architectures. Available values: **x86_64** (x86 architecture) and **aarch64** (Arm architecture).
container_softwares	Array of **ContainerSoftware** objects	**Definition**: Image software list, where each element is a ContainerSoftware object containing the software name and version.
status	String	**Definition**: Image version status. **Range** • **AVAILABLE**: Available. • **UNAVAILABLE**: Unavailable. • **UNKNOWN**: Unknown.
type	String	**Definition**: Image version type. **Range** • **STABLE**: Stable version. • **RECOMMEND**: Recommended version. • **BETA**: Beta version.
visibility	String	**Definition**: Image version visibility. **Range** • **PRIVATE**: Private. The image is visible only within the workspace. • **PUBLIC**: Public. The image is visible to all workspaces.
create_time	String	**Definition**: Custom image version creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A

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Parameter	Type	Description
update_time	String	**Definition**: Custom image version update time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
description	String	**Definition**: Image version description. **Range**: 0 to 2,000 characters. Only letters, digits, and common symbols are allowed. Characters such as exclamation mark (!), less-than sign (<), greater-than sign (>), equal sign (=), ampersand (&), double quotation marks ("), and single quotation marks (') are not allowed.
base_image_id	String	**Definition**: ID of the associated preset base image. **Range**: 0 to 64 characters. Only letters, digits, and hyphens (-) are allowed.
base_image_version_id	String	**Definition**: Version ID of the associated preset base image. **Range**: 0 to 64 characters. Only letters, digits, and hyphens (-) are allowed.
image_snapshot	**V2ImageSnapshotInfo** object	**Definition**: Matched image snapshot information. If no snapshot is matched, null is returned.

Table 15-73 ContainerSoftware

Parameter	Type	Description
name	String	**Definition**: Software name. **Range**: 2 to 32 characters. Only letters, digits, periods (.), underscores (_), and hyphens (-) are allowed.
version	String	**Definition**: Software version. **Range**: 2 to 32 characters. Only letters, digits, periods (.), underscores (_), and hyphens (-) are allowed.

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Table 15-74 V2ImageSnapshotInfo

Parameter	Type	Description
id	String	**Definition**: Image snapshot record ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
image_id	String	**Definition**: Image ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
image_version_id	String	**Definition**: Image version ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: Image snapshot name (user-specified). **Range**: 1 to 190 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a lowercase letter and end with a lowercase letter or digit.
image_address	String	**Definition**: Full image address (including registry/namespace/name:version). **Range**: 0 to 1,024 characters. Only letters, digits, periods (.), colons (:), slashes (/), and hyphens (-) are allowed.
image_name	String	**Definition**: Image name. **Range**: 0 to 128 characters. Only letters, digits, periods (.), slashes (/), colons (:), underscores (_), and hyphens (-) are allowed.
image_version	String	**Definition**: Image version. **Range**: 0 to 1,024 characters. Only letters, digits, periods (.), colons (:), underscores (_), and hyphens (-) are allowed.
status	String	**Definition**: Image snapshot status. **Range** • **Creating**: Creating. • **Available**: Available. • **Unavailable**: Unavailable.

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Parameter	Type	Description
image_snapshot_size	Integer	**Definition**: Snapshot size, in GiB. **Range**: 20 to 400.
creation_mode	String	**Definition**: Creation method. **Range** • **Created**: Direct creation. • **Associated**: Associated with an existing CCI snapshot.
reserved_days	Integer	**Definition**: Image snapshot retention period, in days. The snapshot automatically expires after the retention period. **0** indicates permanent retention. **Range**: 0 to 65,536.
expire_time	String	**Definition**: Image snapshot expiration time. A null value indicates permanent validity. The time is in UTC, in ISO 8601 format (yyyy-MM-dd'T'HH:mm:ss.SSSXXX), for example, **2025-01-10T03:37:12.000+00:00**. **Range**: N/A
failed_message	String	**Definition**: Message indicating why the image snapshot is invalid. **Range**: 0 to 65,535 characters. Only letters, digits, and common symbols are allowed.
create_time	String	**Definition**: Creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
update_time	String	**Definition**: Update time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A

Status code: 400

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Table 15-75 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 15-76 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 15-77 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

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Table 15-78 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Query all versions of an image.

```
GET /v2/images/{image_id}/versions
```

Example Responses

Status code: 200

```
{
  "total" : 1,
  "image_versions" : [ {
    "version_id" : "7a8b9c0d-1e2f-3a4b-5c6d-7e8f9a0b1c2d",
    "category" : "AURA_JOB",
    "architectures" : [ "x86_64" ],
    "container_softwares" : [ {
      "name" : "jdk",
      "version" : "21"
    } ],
    "image_registry" : "swr.cn-north-4.example.com",
    "image_namespace" : "test-namespace",
    "image_name" : "test-image",
    "image_version" : "v1.0.0",
    "status" : "AVAILABLE",
    "type" : "STABLE",
    "visibility" : "PRIVATE",
    "create_time" : "2025-01-10T03:37:12.000+00:00",
    "update_time" : "2025-01-10T03:37:12.000+00:00",
    "description" : "Test image version."
  } ]
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

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Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
500	Internal server error.

15.9 Updating a Custom Image Version

Function

This API is used to update custom image version information. You can update the description, architecture, container software, category, and other information of a specified image version. This API is synchronous and works with the **Registering a Custom Image** API for image version management.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v2/images/{image_id}/versions/{version_id}

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Table 15-79 Path Parameters

Parameter	Mandatory	Type	Description
image_id	Yes	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
version_id	Yes	String	**Definition**: Image version ID. You can obtain the image version ID by calling the **Listing Custom Image Versions** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Request Parameters

Table 15-80 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

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Table 15-81 Request body parameters

Parameter	Mandatory	Type	Description
description	No	String	**Definition**: Description of the custom image. **Constraints**: N/A **Range**: 0 to 2,000 characters. The following characters are not allowed: exclamation mark (!), less-than sign (<), greater-than sign (>), equal sign (=), ampersand (&), double quotation marks ("), and single quotation mark ('). **Default Value**: N/A
architectures	No	Array of strings	**Definition**: List of supported image architectures. The values are **x86_64** (x86 architecture) and **aarch64** (Arm architecture). If this parameter is not specified, the default value is **x86_64**. **Constraints**: N/A
type	No	String	**Definition**: Image version type. **Constraints**: N/A **Range** • **STABLE**: Stable version. • **RECOMMEND**: Recommended version. • **BETA**: Beta version. **Default Value**: N/A
container_softwares	No	Array of **ContainerSoftware** objects	**Definition**: List of software contained in the custom image, where each element is a ContainerSoftware object containing the software name and version. The list can contain 0 to 100 software items. **Constraints**: N/A

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Parameter	Mandatory	Type	Description
category	No	String	**Definition**: Custom image category. **Constraints**: N/A **Range** • **RAY_BASIC**: Custom image built on Ray. • **SPARK_JOB**: Custom image built on SparkJob. • **SPARK_SQL**: Custom image built on SparkSql. • **FLINK_JOB**: Custom image built on FlinkJob. • **AURA_JOB**: Custom image built on AuraJobV2. **Default Value**: N/A

Table 15-82 ContainerSoftware

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Software name. **Constraints**: N/A **Range**: 2 to 32 characters. Only letters, digits, periods (.), underscores (_), and hyphens (-) are allowed. **Default Value**: N/A
version	Yes	String	**Definition**: Software version. **Constraints**: N/A **Range**: 2 to 32 characters. Only letters, digits, periods (.), underscores (_), and hyphens (-) are allowed. **Default Value**: N/A

Response Parameters

Status code: 200

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Table 15-83 Response body parameters

Parameter	Type	Description
version_id	String	**Definition**: Image version ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
image_version	String	**Definition**: Image version. **Range**: 2 to 32 characters. Only letters, digits, periods (.), slashes (/), colons (:), underscores (_), and hyphens (-) are allowed.
category	String	**Definition**: Image category. **Range** • **RAY_BASIC**: Custom image built on Ray. • **SPARK_JOB**: Custom image built on SparkJob. • **SPARK_SQL**: Custom image built on SparkSql. • **FLINK_JOB**: Custom image built on FlinkJob. • **AURA_JOB**: Custom image built on AuraJobV2.
image_registry	String	**Definition**: Image domain name. **Range**: 0 to 255 characters. Only letters, digits, periods (.), and hyphens (-) are allowed.
image_namespace	String	**Definition**: Image namespace. **Range**: 0 to 64 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
image_name	String	**Definition**: Image name. **Range**: 0 to 128 characters. Only letters, digits, hyphens (-), and underscores (_) are allowed.
architectures	Array of strings	**Definition**: List of supported image architectures. Available values: **x86_64** (x86 architecture) and **aarch64** (Arm architecture).
container_softwares	Array of **ContainerSoftware** objects	**Definition**: Image software list, where each element is a ContainerSoftware object containing the software name and version.

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Parameter	Type	Description
status	String	**Definition**: Image version status. **Range** • **AVAILABLE**: Available. • **UNAVAILABLE**: Unavailable. • **UNKNOWN**: Unknown.
type	String	**Definition**: Image version type. **Range** • **STABLE**: Stable version. • **RECOMMEND**: Recommended version. • **BETA**: Beta version.
visibility	String	**Definition**: Image version visibility. **Range** • **PRIVATE**: Private. The image is visible only within the workspace. • **PUBLIC**: Public. The image is visible to all workspaces.
create_time	String	**Definition**: Custom image version creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
update_time	String	**Definition**: Custom image version update time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
description	String	**Definition**: Image version description. **Range**: 0 to 2,000 characters. Only letters, digits, and common symbols are allowed. Characters such as exclamation mark (!), less-than sign (<), greater-than sign (>), equal sign (=), ampersand (&), double quotation marks ("), and single quotation marks (') are not allowed.
base_image_id	String	**Definition**: ID of the associated preset base image. **Range**: 0 to 64 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
base_image_version_id	String	**Definition**: Version ID of the associated preset base image. **Range**: 0 to 64 characters. Only letters, digits, and hyphens (-) are allowed.
image_snapshot	**V2ImageSnapshotInfo** object	**Definition**: Matched image snapshot information. If no snapshot is matched, null is returned.

Table 15-84 ContainerSoftware

Parameter	Type	Description
name	String	**Definition**: Software name. **Range**: 2 to 32 characters. Only letters, digits, periods (.), underscores (_), and hyphens (-) are allowed.
version	String	**Definition**: Software version. **Range**: 2 to 32 characters. Only letters, digits, periods (.), underscores (_), and hyphens (-) are allowed.

Table 15-85 V2ImageSnapshotInfo

Parameter	Type	Description
id	String	**Definition**: Image snapshot record ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
image_id	String	**Definition**: Image ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
image_version_id	String	**Definition**: Image version ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
name	String	**Definition**: Image snapshot name (user-specified). **Range**: 1 to 190 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a lowercase letter and end with a lowercase letter or digit.
image_address	String	**Definition**: Full image address (including registry/namespace/name:version). **Range**: 0 to 1,024 characters. Only letters, digits, periods (.), colons (:), slashes (/), and hyphens (-) are allowed.
image_name	String	**Definition**: Image name. **Range**: 0 to 128 characters. Only letters, digits, periods (.), slashes (/), colons (:), underscores (_), and hyphens (-) are allowed.
image_version	String	**Definition**: Image version. **Range**: 0 to 1,024 characters. Only letters, digits, periods (.), colons (:), underscores (_), and hyphens (-) are allowed.
status	String	**Definition**: Image snapshot status. **Range** • **Creating**: Creating. • **Available**: Available. • **Unavailable**: Unavailable.
image_snapshot_size	Integer	**Definition**: Snapshot size, in GiB. **Range**: 20 to 400.
creation_mode	String	**Definition**: Creation method. **Range** • **Created**: Direct creation. • **Associated**: Associated with an existing CCI snapshot.

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Parameter	Type	Description
reserved_days	Integer	**Definition**: Image snapshot retention period, in days. The snapshot automatically expires after the retention period. **0** indicates permanent retention. **Range**: 0 to 65,536.
expire_time	String	**Definition**: Image snapshot expiration time. A null value indicates permanent validity. The time is in UTC, in ISO 8601 format (yyyy-MM-dd'T'HH:mm:ss.SSSXXX), for example, **2025-01-10T03:37:12.000+00:00**. **Range**: N/A
failed_message	String	**Definition**: Message indicating why the image snapshot is invalid. **Range**: 0 to 65,535 characters. Only letters, digits, and common symbols are allowed.
create_time	String	**Definition**: Creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
update_time	String	**Definition**: Update time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A

Status code: 400

Table 15-86 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

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Status code: 401

Table 15-87 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 15-88 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 15-89 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

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Table 15-90 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 15-91 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Modify the description of a custom image version to **Updated Ray image**.

```
PUT /v2/images/{image_id}/versions/{version_id}

{
  "architectures" : [ "x86_64" ],
  "container_softwares" : [ {
    "name" : "jdk",
    "version" : "21"
  } ],
  "description" : "Updated Ray image"
}
```

Example Responses

Status code: 200

```
{
  "version_id" : "7a8b9c0d-1e2f-3a4b-5c6d-7e8f9a0b1c2d",
  "category" : "RAY_BASIC",
  "architectures" : [ "x86_64" ],
  "container_softwares" : [ {
    "name" : "jdk",
    "version" : "21"
```

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```
  } ],
  "image_registry" : "swr.cn-north-4.example.com",
  "image_namespace" : "test-namespace",
  "image_name" : "test-image",
  "image_version" : "v1.0.0",
  "status" : "AVAILABLE",
  "type" : "STABLE",
  "visibility" : "PRIVATE",
  "create_time" : "2025-01-10T03:37:12.000+00:00",
  "update_time" : "2025-01-10T03:37:12.000+00:00",
  "description" : "Updated Ray image"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010411",
  "error_msg" : "Image version not found, image ID: b9e48f42-26ba-4be9-b6f0-9de1b048c053, version ID: cb46a24c-b5ec-4134-9f03-195477bdfe03.",
  "solution_msg" : "Please check whether the image ID and version ID are correct or exist in SWR."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

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Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
408	Request timeout.
500	Internal server error.

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16 Image Snapshot Management

16.1 Listing Image Snapshots

Function

This API is used to query all image snapshots of the current tenant. This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/image-snapshots

Table 16-1 Query Parameters

Parameter	Mandatory	Type	Description
status	No	String	**Definition**: Image snapshot status. **Constraints**: N/A **Range** • **Creating**: Creating. • **Available**: Available. • **Unavailable**: Unavailable. **Default Value**: N/A
offset	No	Integer	**Definition**: Page offset. **Constraints**: N/A **Range**: 0 to 10000. **Default Value**: **0**.

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Parameter	Mandatory	Type	Description
limit	No	Integer	**Definition**: Page size. **Constraints**: N/A **Range**: 1 to 1000. **Default Value**: **100**.

Request Parameters

Table 16-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 16-3 Response body parameters

Parameter	Type	Description
total	Integer	**Definition**: Total number of snapshots. **Range**: 0 to 10,000.
image_snapshots	Array of **V2ImageSnapshotInfo** objects	**Definition**: Image snapshot list.

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Table 16-4 V2ImageSnapshotInfo

Parameter	Type	Description
id	String	**Definition**: Image snapshot record ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
image_id	String	**Definition**: Image ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
image_version_id	String	**Definition**: Image version ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: Image snapshot name (user-specified). **Range**: 1 to 190 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a lowercase letter and end with a lowercase letter or digit.
image_address	String	**Definition**: Full image address (including registry/namespace/name:version). **Range**: 0 to 1,024 characters. Only letters, digits, periods (.), colons (:), slashes (/), and hyphens (-) are allowed.
image_name	String	**Definition**: Image name. **Range**: 0 to 128 characters. Only letters, digits, periods (.), slashes (/), colons (:), underscores (_), and hyphens (-) are allowed.
image_version	String	**Definition**: Image version. **Range**: 0 to 1,024 characters. Only letters, digits, periods (.), colons (:), underscores (_), and hyphens (-) are allowed.
status	String	**Definition**: Image snapshot status. **Range** • **Creating**: Creating. • **Available**: Available. • **Unavailable**: Unavailable.

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Parameter	Type	Description
image_snapshot_size	Integer	**Definition**: Snapshot size, in GiB. **Range**: 20 to 400.
creation_mode	String	**Definition**: Creation method. **Range** • **Created**: Direct creation. • **Associated**: Associated with an existing CCI snapshot.
reserved_days	Integer	**Definition**: Image snapshot retention period, in days. The snapshot automatically expires after the retention period. **0** indicates permanent retention. **Range**: 0 to 65,536.
expire_time	String	**Definition**: Image snapshot expiration time. A null value indicates permanent validity. The time is in UTC, in ISO 8601 format (yyyy-MM-dd'T'HH:mm:ss.SSSXXX), for example, **2025-01-10T03:37:12.000+00:00**. **Range**: N/A
failed_message	String	**Definition**: Message indicating why the image snapshot is invalid. **Range**: 0 to 65,535 characters. Only letters, digits, and common symbols are allowed.
create_time	String	**Definition**: Creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
update_time	String	**Definition**: Update time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A

Status code: 400

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Table 16-5 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 16-6 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 16-7 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

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Table 16-8 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

List available image snapshots of the current tenant, starting from the 0th entry, with 10 entries queried.

```
GET /v2/image-snapshots?status=Available&offset=0&limit=10
```

Example Responses

Status code: 200

```
{
  "total" : 1,
  "image_snapshots" : [ {
    "id" : "1a2b3c4d-5e6f-7890-abcd-1e2f3a4b5c6d",
    "image_id" : "1a2b3c4d-5e6f-7880-abcd-1e2f3a4b5c6d",
    "image_version_id" : "7a8b9c0d-1e2f-3a4b-5c6d-7e8f9a0b1c2d",
    "name" : "my-snapshot",
    "image_address" : "swr.example.com/ns/my-image:v1.0",
    "image_name" : "my-image",
    "image_version" : "v1.0",
    "status" : "Available",
    "image_snapshot_size" : 60,
    "creation_mode" : "Created",
    "reserved_days" : 30,
    "expire_time" : "2026-09-25T00:00:00.000+00:00",
    "failed_message" : "",
    "create_time" : "2026-08-26T10:00:00.000+00:00",
    "update_time" : "2026-08-26T10:05:00.000+00:00"
  } ]
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

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```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
500	Internal server error.

16.2 Creating an Image Snapshot

Function

This API is used to create a snapshot for a specified image version. This API is asynchronous. Only one snapshot can be created for an image version. After creation, the status is **Creating**. You can obtain the creation result by calling the **Listing Image Snapshots** API.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/images/{image_id}/versions/{version_id}/image-snapshots

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Table 16-9 Path Parameters

Parameter	Mandatory	Type	Description
image_id	Yes	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
version_id	Yes	String	**Definition**: Image version ID. You can obtain the image version ID by calling the **Listing Custom Image Versions** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Request Parameters

Table 16-10 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

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Table 16-11 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	**Definition**: Snapshot name (user-specified, used to identify the snapshot purpose). **Constraints**: N/A **Range**: 1 to 190 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a lowercase letter and end with a lowercase letter or digit. **Default Value**: N/A
image_snapshot_size	No	Integer	**Definition**: Snapshot size, in GiB. **Constraints**: N/A **Range**: 20 to 400. **Default Value**: If not specified, the value is automatically estimated as 3 times the image size.
reserved_days	No	Integer	**Definition**: Image snapshot retention period, in days. The snapshot automatically expires after the retention period. **0** indicates permanent retention. **Constraints**: N/A **Range**: 0 to 65,536 days. **Default Value**: **0**

Response Parameters

Status code: 200

Table 16-12 Response body parameters

Parameter	Type	Description
id	String	**Definition**: Image snapshot record ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Parameter	Type	Description
image_id	String	**Definition**: Image ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
image_version_id	String	**Definition**: Image version ID. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.
name	String	**Definition**: Image snapshot name (user-specified). **Range**: 1 to 190 characters. Only lowercase letters, digits, and hyphens (-) are allowed. It must start with a lowercase letter and end with a lowercase letter or digit.
image_address	String	**Definition**: Full image address (including registry/namespace/name:version). **Range**: 0 to 1,024 characters. Only letters, digits, periods (.), colons (:), slashes (/), and hyphens (-) are allowed.
image_name	String	**Definition**: Image name. **Range**: 0 to 128 characters. Only letters, digits, periods (.), slashes (/), colons (:), underscores (_), and hyphens (-) are allowed.
image_version	String	**Definition**: Image version. **Range**: 0 to 1,024 characters. Only letters, digits, periods (.), colons (:), underscores (_), and hyphens (-) are allowed.
status	String	**Definition**: Image snapshot status. **Range** • **Creating**: Creating. • **Available**: Available. • **Unavailable**: Unavailable.
image_snapshot_size	Integer	**Definition**: Snapshot size, in GiB. **Range**: 20 to 400.

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Parameter	Type	Description
creation_mode	String	**Definition**: Creation method. **Range** • **Created**: Direct creation. • **Associated**: Associated with an existing CCI snapshot.
reserved_days	Integer	**Definition**: Image snapshot retention period, in days. The snapshot automatically expires after the retention period. **0** indicates permanent retention. **Range**: 0 to 65,536.
expire_time	String	**Definition**: Image snapshot expiration time. A null value indicates permanent validity. The time is in UTC, in ISO 8601 format (yyyy-MM-dd'T'HH:mm:ss.SSSXXX), for example, **2025-01-10T03:37:12.000+00:00**. **Range**: N/A
failed_message	String	**Definition**: Message indicating why the image snapshot is invalid. **Range**: 0 to 65,535 characters. Only letters, digits, and common symbols are allowed.
create_time	String	**Definition**: Creation time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A
update_time	String	**Definition**: Update time, in UTC format, ISO 8601: yyyy-MM-dd'T'HH:mm:ss.SSSXXX. Example: 2025-01-10T03:37:12.000+00:00. **Range**: N/A

Status code: 400

Table 16-13 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 16-14 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 16-15 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

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Table 16-16 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 16-17 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Create a snapshot named "my-snapshot" for a specified image version. The snapshot size is 60 GiB and the retention period is 30 days.

```
POST /v2/images/1a2b3c4d-5e6f-7890-abcd-1e2f3a4b5c6d/versions/
7a8b9c0d-1e2f-3a4b-5c6d-7e8f9a0b1c2d/image-snapshots

{
  "name" : "my-snapshot",
  "image_snapshot_size" : 60,
  "reserved_days" : 30
}
```

Example Responses

Status code: 200

```
{
  "id" : "1a2b3c4d-5e6f-7860-abcd-1e2f3a4b5c6d",
  "image_id" : "1a2b3c4d-5e6f-7890-abcd-1e2f3a4b5c6d",
  "image_version_id" : "7a8b9c0d-1e2f-3a4b-5c6d-7e8f9a0b1c2d",
  "name" : "my-snapshot",
  "image_address" : "swr.example.com/ns/my-image:v1.0",
  "image_name" : "my-image",
  "image_version" : "v1.0",
```

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```
  "status" : "Creating",
  "image_snapshot_size" : 60,
  "creation_mode" : "Created",
  "reserved_days" : 30,
  "expire_time" : "2026-09-25T10:00:00.000+00:00",
  "failed_message" : "",
  "create_time" : "2026-08-26T10:00:00.000+00:00",
  "update_time" : "2026-08-26T10:00:00.000+00:00"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010411",
  "error_msg" : "Image version not found, image ID: b9e48f42-26ba-4be9-b6f0-9de1b048c053, version ID:
cb46a24c-b5ec-4134-9f03-195477bdfe03.",
  "solution_msg" : "Please check whether the image ID and version ID are correct or exist in SWR."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.

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Status Code	Description
500	Internal server error.

16.3 Deleting an Image Snapshot

Function

This API is used to delete a specified image snapshot. Snapshots being created cannot be deleted. This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/images/{image_id}/versions/{version_id}/image-snapshots/{image_snapshot_id}

Table 16-18 Path Parameters

Parameter	Mandatory	Type	Description
image_id	Yes	String	**Definition**: Image ID. You can obtain the image ID by calling the **Listing Custom Images** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
version_id	Yes	String	**Definition**: Image version ID. You can obtain the image version ID by calling the **Listing Custom Image Versions** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
image_snapshot_id	Yes	String	**Definition**: Image snapshot ID. You can obtain the image snapshot ID by calling the **Listing Image Snapshots** API. **Constraints**: N/A **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Request Parameters

Table 16-19 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 16-20 Response body parameters

Parameter	Type	Description
image_snapshot_id	String	**Definition**: ID of the deleted image snapshot. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed.

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Status code: 400

Table 16-21 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 16-22 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 16-23 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

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Table 16-24 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 16-25 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Delete a specified image snapshot.

```
DELETE /v2/images/{image_id}/versions/{version_id}/image-snapshots/{image_snapshot_id}
```

Example Responses

Status code: 200

```
{
  "image_snapshot_id" : "9a0b1c2d-3e4f-5a6b-7c8d-9e0f1a2b3c4d"
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
```

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```
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010401",
  "error_msg" : "Image snapshot not found, ID: 9a0b1c2d-3e4f-5a6b-8c7d-9e0f1a2b3c4d",
  "solution_msg" : "Please check if the image snapshot ID is correct."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Deletion succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
500	Internal server error.

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17 TMS Management

17.1 Querying Project Tags

Function

This API is used to list tags associated with a specified project. This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/{resource_type}/tags

Table 17-1 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID. For details about how to obtain the project ID, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
resource_type	Yes	String	**Definition**: Resource type, used to specify the type of resource to be tagged. **Constraints**: Cannot be empty. **Range** • **aidatalake-workspace**: Workspace. • **aidatalake-endpoint-ray**: Ray engine endpoint. • **aidatalake-endpoint-aura**: Aura engine endpoint. • **aidatalake-endpoint-spark**: Spark engine endpoint. • **aidatalake-endpoint-flink**: Flink engine endpoint. • **aidatalake-compute**: Compute resources. **Default Value**: N/A

Table 17-2 Query Parameters

Parameter	Mandatory	Type	Description
use_predefine_tags	Yes	Boolean	**Definition**: Whether to use predefined tags. **Constraints**: N/A **Range** • **true**: Predefined tags are used. • **false**: Predefined tags are not used. **Default Value**: **false**.

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Parameter	Mandatory	Type	Description
engine_types	No	Array of strings	**Definition**: List of endpoint engine types. **Range** • **AuraJob**: AuraJob engine. • **SparkSql**: SparkSQL engine. • **SparkJob**: SparkJob engine. • **FlinkJob**: FlinkJob engine. • **AuraJobV2**: AuraJobV2 engine. • **RayCluster**: RayCluster engine. • **RayJob**: RayJob engine. **Constraints**: N/A
offset	No	Integer	**Definition**: Page offset. **Constraints**: N/A **Range**: 0 to 10000. **Default Value**: **0**.
limit	No	Integer	**Definition**: Number of records to query. **Constraints**: N/A **Range**: 1 to 1,000. **Default Value**: **1000**.

Request Parameters

Table 17-3 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

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Response Parameters

Status code: 200

Table 17-4 Response body parameters

Parameter	Type	Description
total_count	Integer	**Definition**: Total number of project tag records. **Range**: 0 to 2,147,483,647.
tags	Array of **V2ProjectResourceTag** objects	**Definition**: Project tag list. Each element is a V2ProjectResourceTag object containing the **key** (tag key) and **values** (tag value list) fields.

Table 17-5 V2ProjectResourceTag

Parameter	Type	Description
key	String	**Definition**: Key of a project resource tag. **Range**: 1 to 128 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.
values	Array of strings	**Definition**: List of project resource tag values. Each element is a string, and the array can contain up to 1,000 elements.

Status code: 400

Table 17-6 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.

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Parameter	Type	Description
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 17-7 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 17-8 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

Table 17-9 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.

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Parameter	Type	Description
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 17-10 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Query tags of a specified resource type under a project.

```
GET /v2/{project_id}/{resource_type}/tags?use_predefine_tags=false
```

Example Responses

Status code: 200

```
{
  "total_count" : 1,
  "tags" : [ {
    "key" : "tag_key",
    "values" : [ "tag_value" ]
  } ]
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
```

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```
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
408	Request timeout.
500	Internal server error.

17.2 Listing Resource Instances

Function

This API is used to list resources by tag. This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/{resource_type}/resource-instances/filter

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Table 17-11 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID. For details about how to obtain the project ID, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
resource_type	Yes	String	**Definition**: Resource type, used to specify the type of resource to be tagged. **Constraints**: Cannot be empty. **Range** • **aidatalake-workspace**: Workspace. • **aidatalake-endpoint-ray**: Ray engine endpoint. • **aidatalake-endpoint-aura**: Aura engine endpoint. • **aidatalake-endpoint-spark**: Spark engine endpoint. • **aidatalake-endpoint-flink**: Flink engine endpoint. • **aidatalake-compute**: Compute resources. **Default Value**: N/A

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Table 17-12 Query Parameters

Parameter	Mandatory	Type	Description
engine_types	No	Array of strings	**Definition**: List of endpoint engine types. **Range** • **AuraJob**: AuraJob engine. • **SparkSql**: SparkSQL engine. • **SparkJob**: SparkJob engine. • **FlinkJob**: FlinkJob engine. • **AuraJobV2**: AuraJobV2 engine. • **RayCluster**: RayCluster engine. • **RayJob**: RayJob engine. **Constraints**: N/A
offset	No	Integer	**Definition**: Page offset. **Constraints**: N/A **Range**: 0 to 10000. **Default Value**: **0**.
limit	No	Integer	**Definition**: Number of records to query. **Constraints**: N/A **Range**: 1 to 1,000. **Default Value**: **1000**.

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Request Parameters

Table 17-13 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Table 17-14 Request body parameters

Parameter	Mandatory	Type	Description
without_any_tag	No	Boolean	**Definition**: Not containing any tag. **Constraints**: N/A **Range** • **true**: Resources that do not contain any tag are queried. In this case, the **tags** filter field is ignored. • **false**: This condition does not take effect, meaning all resources are returned or filtered by **tags**, **matches**, or other conditions. **Default Value**: N/A
tags	No	Array of **V2ResourceTagParam** objects	**Definition**: Tags are included. Each tag contains a maximum of 20 keys. Each key can have up to 20 values. The value corresponding to each key can be an empty array, but the structure cannot be missing. **Constraints**: Up to 20.

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Parameter	Mandatory	Type	Description
matches	No	Array of **V2TagMatch** objects	**Definition**: Prefix search field. **key** is a fixed dictionary value. Currently, only **resource_name** is supported, indicating a search based on the resource name prefix. **value** is the matching value. **Constraints**: N/A
sys_tags	No	Array of **V2SystemTagParam** objects	**Definition**: system tag list. Only one tag structure is included currently. Each key contains only one value. **Constraints**: N/A

Table 17-15 V2ResourceTagParam

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: Resource tag key. **Constraints**: N/A **Range**: 1 to 128 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed. **Default Value**: N/A
values	No	Array of strings	**Definition**: Resource tag value list. **Constraints**: Up to 20 strings. Each string has a maximum of 255 characters.

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Table 17-16 V2TagMatch

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: Fixed dictionary value. **Constraints**: N/A **Range**: **resource_name**, indicating the resource name. **Default Value**: N/A
value	No	String	**Definition**: Prefix matching value based on the field corresponding to **key**. **Constraints**: Up to 255 characters. **Range**: N/A **Default Value**: N/A

Table 17-17 V2SystemTagParam

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: Key of a system tag. **Constraints**: N/A **Range**: **_sys_enterprise_project_id** **Default Value**: N/A
values	Yes	Array of strings	**Definition**: List of system tag values, that is, a list of enterprise project IDs. An enterprise project ID can be obtained by calling the **Obtaining an Enterprise Project ID** API. **Constraints**: N/A

Response Parameters

Status code: 200

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Table 17-18 Response body parameters

Parameter	Type	Description
resources	Array of **V2TagResource** objects	**Definition**: Resource instance list.
total_count	Integer	**Definition**: Total number of resource instances. **Range**: 0 to 2,147,483,647.

Table 17-19 V2TagResource

Parameter	Type	Description
resource_id	String	**Definition**: Tag resource ID. **Range**: Up to 64 characters. Only letters, digits, and hyphens (-) are allowed.
resource_detail	Object	**Definition**: Tag resource details. Resource object for extension. Empty by default.
resource_name	String	**Definition**: Tag resource name. **Range**: N/A
tags	Array of **ResourceTag** objects	**Definition**: Tag list. If no tags exist, an empty array is returned by default. Each element is a ResourceTag object containing the **key** (tag key) and **value** (tag value) fields.
sys_tags	Array of **SystemTag** objects	**Definition**: System tag list. If no system tags exist, this field is not returned by default. Each element is a SystemTag object containing the **key** (system tag key) and **value** (system tag value) fields.

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Table 17-20 ResourceTag

Parameter	Type	Description
key	String	**Definition**: Resource tag key. **Range**: 1 to 128 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.
value	String	**Definition**: Resource tag value. **Range**: 0 to 255 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.

Table 17-21 SystemTag

Parameter	Type	Description
key	String	**Definition**: System tag key. **Range**: **_sys_enterprise_project_id**
value	String	**Definition**: System tag value. Enterprise project ID. For details about how to obtain the enterprise project ID, see **Obtaining an Enterprise Project ID**. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.

Status code: 400

Table 17-22 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

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Status code: 401

Table 17-23 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 17-24 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

Table 17-25 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

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Table 17-26 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Resource list based on tag filtering. The following is an example request.

```
POST /v2/{project_id}/{resource_type}/resource-instances/filter

{
  "without_any_tag" : false,
  "tags" : [ {
    "key" : "tag_key",
    "values" : [ "tag_value" ]
  } ],
  "matches" : [ {
    "key" : "resource_name",
    "value" : "resource_name_value"
  } ]
}
```

Example Responses

Status code: 200

```
{
  "resources" : [ {
    "resource_id" : "01049549-82cd-4a3e-9f7b-ddb94350c125",
    "resource_detail" : { },
    "resource_name" : "resource_name_value",
    "tags" : [ {
      "key" : "tag_key",
      "value" : "tag_value"
    } ],
    "sys_tags" : [ {
      "key" : "_sys_enterprise_project_id",
      "value" : "01049549-82cd-4a3e-9f7b-ddb94350c125"
    } ]
  } ],
  "total_count" : 1
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

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```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
408	Request timeout.
500	Internal server error.

17.3 Querying the Number of Resource Instances

Function

This API is used to query the number of resource instances by tag. This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

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URI

POST /v2/{project_id}/{resource_type}/resource-instances/count

Table 17-27 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID. For details about how to obtain the project ID, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
resource_type	Yes	String	**Definition**: Resource type, used to specify the type of resource to be tagged. **Constraints**: Cannot be empty. **Range** • **aidatalake-workspace**: Workspace. • **aidatalake-endpoint-ray**: Ray engine endpoint. • **aidatalake-endpoint-aura**: Aura engine endpoint. • **aidatalake-endpoint-spark**: Spark engine endpoint. • **aidatalake-endpoint-flink**: Flink engine endpoint. • **aidatalake-compute**: Compute resources. **Default Value**: N/A

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Table 17-28 Query Parameters

Parameter	Mandatory	Type	Description
engine_types	No	Array of strings	**Definition**: List of endpoint engine types. **Range** • **AuraJob**: AuraJob engine. • **SparkSql**: SparkSQL engine. • **SparkJob**: SparkJob engine. • **FlinkJob**: FlinkJob engine. • **AuraJobV2**: AuraJobV2 engine. • **RayCluster**: RayCluster engine. • **RayJob**: RayJob engine. **Constraints**: N/A

Request Parameters

Table 17-29 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

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Table 17-30 Request body parameters

Parameter	Mandatory	Type	Description
without_any_tag	No	Boolean	**Definition**: Not containing any tag. **Constraints**: N/A **Range** • **true**: Resources that do not contain any tag are queried. In this case, the **tags** filter field is ignored. • **false**: This condition does not take effect, meaning all resources are returned or filtered by **tags**, **matches**, or other conditions. **Default Value**: N/A
tags	No	Array of **V2ResourceTagParam** objects	**Definition**: Tags are included. Each tag contains a maximum of 20 keys. Each key can have up to 20 values. The value corresponding to each key can be an empty array, but the structure cannot be missing. **Constraints**: Up to 20.
matches	No	Array of **V2TagMatch** objects	**Definition**: Prefix search field. **key** is a fixed dictionary value. Currently, only **resource_name** is supported, indicating a search based on the resource name prefix. **value** is the matching value. **Constraints**: N/A
sys_tags	No	Array of **V2SystemTagParam** objects	**Definition**: system tag list. Only one tag structure is included currently. Each key contains only one value. **Constraints**: N/A

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Table 17-31 V2ResourceTagParam

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: Resource tag key. **Constraints**: N/A **Range**: 1 to 128 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed. **Default Value**: N/A
values	No	Array of strings	**Definition**: Resource tag value list. **Constraints**: Up to 20 strings. Each string has a maximum of 255 characters.

Table 17-32 V2TagMatch

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: Fixed dictionary value. **Constraints**: N/A **Range**: **resource_name**, indicating the resource name. **Default Value**: N/A
value	No	String	**Definition**: Prefix matching value based on the field corresponding to **key**. **Constraints**: Up to 255 characters. **Range**: N/A **Default Value**: N/A

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Table 17-33 V2SystemTagParam

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: Key of a system tag. **Constraints**: N/A **Range**: **_sys_enterprise_project_id** **Default Value**: N/A
values	Yes	Array of strings	**Definition**: List of system tag values, that is, a list of enterprise project IDs. An enterprise project ID can be obtained by calling the **Obtaining an Enterprise Project ID** API. **Constraints**: N/A

Response Parameters

Status code: 200

Table 17-34 Response body parameters

Parameter	Type	Description
total_count	Integer	**Definition**: Number of tag resource instances. **Range**: 0 to 2,147,483,647.

Status code: 400

Table 17-35 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

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Status code: 401

Table 17-36 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 17-37 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 17-38 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

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Table 17-39 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

Table 17-40 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Count the number of resources based on tag filtering. The following is an example request.

```
POST /v2/{project_id}/{resource_type}/resource-instances/count

{
  "without_any_tag" : false,
  "tags" : [ {
    "key" : "tag_key",
    "values" : [ "tag_value" ]
  } ],
  "matches" : [ {
    "key" : "resource_name",
    "value" : "resource_name_value"
  } ]
}
```

Example Responses

Status code: 200

```
{
  "total_count" : 1
}
```

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Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
408	Request timeout.
500	Internal server error.

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17.4 Querying Resource Tags

Function

This API is used to list tags associated with a specified resource. This API is synchronous. There are no accompanying APIs or specific scenarios.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/{resource_type}/{resource_id}/tags

Table 17-41 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID. For details about how to obtain the project ID, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Parameter	Mandatory	Type	Description
resource_type	Yes	String	**Definition**: Resource type, used to specify the type of resource to be tagged. **Constraints**: Cannot be empty. **Range** • **aidatalake-workspace**: Workspace. • **aidatalake-endpoint-ray**: Ray engine endpoint. • **aidatalake-endpoint-aura**: Aura engine endpoint. • **aidatalake-endpoint-spark**: Spark engine endpoint. • **aidatalake-endpoint-flink**: Flink engine endpoint. • **aidatalake-compute**: Compute resources. **Default Value**: N/A
resource_id	Yes	String	**Definition**: ID of the resource associated with the tag. **Constraints**: Cannot be empty. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

Table 17-42 Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	**Definition**: Page offset. **Constraints**: N/A **Range**: 0 to 10000. **Default Value**: **0**.
limit	No	Integer	**Definition**: Number of records to query. **Constraints**: N/A **Range**: 1 to 1,000. **Default Value**: **1000**.

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Request Parameters

Table 17-43 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Response Parameters

Status code: 200

Table 17-44 Response body parameters

Parameter	Type	Description
tags	Array of **ResourceTag** objects	**Definition**: Resource tag list. Each element is a ResourceTag object containing the **key** (tag key) and **value** (tag value) fields.
sys_tags	Array of **SystemTag** objects	**Definition**: System tag list, where each element is a SystemTag object containing the **key** (system tag key) and **value** (system tag value) fields.

Table 17-45 ResourceTag

Parameter	Type	Description
key	String	**Definition**: Resource tag key. **Range**: 1 to 128 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.

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Parameter	Type	Description
value	String	**Definition**: Resource tag value. **Range**: 0 to 255 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed.

Table 17-46 SystemTag

Parameter	Type	Description
key	String	**Definition**: System tag key. **Range**: **_sys_enterprise_project_id**
value	String	**Definition**: System tag value. Enterprise project ID. For details about how to obtain the enterprise project ID, see **Obtaining an Enterprise Project ID**. **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed.

Status code: 400

Table 17-47 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

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Table 17-48 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

Table 17-49 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

Table 17-50 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

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Table 17-51 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Query the tags associated with a specified resource. The following is an example request.

```
GET /v2/{project_id}/{resource_type}/{resource_id}/tags
```

Example Responses

Status code: 200

```
{
  "tags" : [ {
    "key" : "key1",
    "value" : "value1"
  } ],
  "sys_tags" : [ {
    "key" : "_sys_enterprise_project_id",
    "value" : "01049549-82cd-4a3e-9f7b-ddb94350c125"
  } ]
}
```

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
```

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```
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
200	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
408	Request timeout.
500	Internal server error.

17.5 Batch Adding Resource Tags

Function

This API is used to batch add tags to a resource. This API is synchronous and has no matching APIs. Duplicate keys are not allowed in the same request. If a key already exists in the database, its value will be overwritten.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/{resource_type}/{resource_id}/tags/create

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Table 17-52 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID. For details about how to obtain the project ID, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
resource_type	Yes	String	**Definition**: Resource type, used to specify the type of resource to be tagged. **Constraints**: Cannot be empty. **Range** • **aidatalake-workspace**: Workspace. • **aidatalake-endpoint-ray**: Ray engine endpoint. • **aidatalake-endpoint-aura**: Aura engine endpoint. • **aidatalake-endpoint-spark**: Spark engine endpoint. • **aidatalake-endpoint-flink**: Flink engine endpoint. • **aidatalake-compute**: Compute resources. **Default Value**: N/A
resource_id	Yes	String	**Definition**: ID of the resource associated with the tag. **Constraints**: Cannot be empty. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Request Parameters

Table 17-53 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Table 17-54 Request body parameters

Parameter	Mandatory	Type	Description
tags	No	Array of **V2ResourceTag** objects	**Definition**: Tag list in the batch creation request body, where each element is a V2ResourceTag object containing the **key** (tag key) and **value** (tag value) fields. **Constraints**: Up to 20 tags. **Default Value**: N/A
sys_tags	No	Array of **SystemTag** objects	**Definition**: System tag list, where each element is a SystemTag object containing the **key** (system tag key) and **value** (system tag value) fields. **Constraints**: N/A

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Table 17-55 V2ResourceTag

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: Resource tag key. **Constraints**: N/A **Range**: 1 to 128 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed. **Default Value**: N/A
value	No	String	**Definition**: Resource tag value. **Constraints**: N/A **Range**: 0 to 255 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed. **Default Value**: N/A

Table 17-56 SystemTag

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: System tag key. **Constraints**: N/A **Range**: **_sys_enterprise_project_id** **Default Value**: N/A
value	Yes	String	**Definition**: System tag value. Enterprise project ID. For details about how to obtain the enterprise project ID, see **Obtaining an Enterprise Project ID**. **Constraints**: N/A **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Response Parameters

Status code: 204

Table 17-57 Response body parameters

Parameter	Type	Description
-	AnyType	Request succeeded.

Status code: 400

Table 17-58 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 17-59 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

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Table 17-60 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 17-61 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

Table 17-62 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

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Table 17-63 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Batch add tags to resources. The following is an example request.

```
POST /v2/{project_id}/{resource_type}/{resource_id}/tags/create

{
  "tags" : [ {
    "key" : "key1",
    "value" : "value1"
  } ],
  "sys_tags" : [ {
    "key" : "_sys_enterprise_project_id",
    "value" : "01049549-82cd-4a3e-9f7b-ddb94350c125"
  } ]
}
```

Example Responses

Status code: 204

None

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

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```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
204	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
408	Request timeout.
500	Internal server error.

17.6 Batch Deleting Resource Tags

Function

This API is used to batch delete tags from a resource. This API is synchronous and has no matching APIs. If a tag to be deleted does not exist, the deletion is still considered successful by default. The character set of tags is not validated during deletion. The tags structure must not be missing, and the key must not be null or an empty string.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/{resource_type}/{resource_id}/tags/delete

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Table 17-64 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition**: Project ID. For details about how to obtain the project ID, see **Obtaining a Project ID**. **Constraints**: N/A **Range**: 1 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A
resource_type	Yes	String	**Definition**: Resource type, used to specify the type of resource to be tagged. **Constraints**: Cannot be empty. **Range** • **aidatalake-workspace**: Workspace. • **aidatalake-endpoint-ray**: Ray engine endpoint. • **aidatalake-endpoint-aura**: Aura engine endpoint. • **aidatalake-endpoint-spark**: Spark engine endpoint. • **aidatalake-endpoint-flink**: Flink engine endpoint. • **aidatalake-compute**: Compute resources. **Default Value**: N/A
resource_id	Yes	String	**Definition**: ID of the resource associated with the tag. **Constraints**: Cannot be empty. **Range**: 32 to 36 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Request Parameters

Table 17-65 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition**: User token. It is obtained by calling the **Obtaining an IAM User Token** API. **Constraints**: N/A **Range**: Up to 65,534 characters. Only letters, digits, and special characters are allowed. The token format is defined by IAM. For details about the character set, see the IAM documentation. **Default Value**: N/A

Table 17-66 Request body parameters

Parameter	Mandatory	Type	Description
tags	Yes	Array of **V2DeleteResourceTag** objects	**Definition**: Tag list in the batch deletion request body, where each element is a V2DeleteResourceTag object containing the **key** (tag key) and **value** (tag value) fields. **Constraints**: N/A **Range**: N/A **Default Value**: N/A
sys_tags	No	Array of **SystemTag** objects	**Definition**: System tag list in the batch deletion request body, where each element is a SystemTag object containing the **key** (system tag key) and **value** (system tag value) fields. **Constraints**: N/A **Range**: N/A **Default Value**: N/A

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Table 17-67 V2DeleteResourceTag

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: Resource tag key. **Constraints**: N/A **Range**: 1 to 128 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed. **Default Value**: N/A
value	No	String	**Definition**: Resource tag value. **Constraints**: N/A **Range**: 0 to 255 characters. Only letters, spaces, digits, underscores (_), periods (.), colons (:), backslashes (), equal signs (=), plus signs (+), minus signs (-), and at signs (@) are allowed. **Default Value**: N/A

Table 17-68 SystemTag

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition**: System tag key. **Constraints**: N/A **Range**: **_sys_enterprise_project_id** **Default Value**: N/A
value	Yes	String	**Definition**: System tag value. Enterprise project ID. For details about how to obtain the enterprise project ID, see **Obtaining an Enterprise Project ID**. **Constraints**: N/A **Range**: 1 to 64 characters. Only letters, digits, and hyphens (-) are allowed. **Default Value**: N/A

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Response Parameters

Status code: 204

Table 17-69 Response body parameters

Parameter	Type	Description
-	AnyType	Request succeeded.

Status code: 400

Table 17-70 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 401

Table 17-71 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 403

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Table 17-72 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 404

Table 17-73 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 408

Table 17-74 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Status code: 500

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Table 17-75 Response body parameters

Parameter	Type	Description
error_code	String	**Definition**: Error code. **Range**: 8 to 36 characters.
error_msg	String	**Definition**: Error description. **Range**: 2 to 512 characters.
solution_msg	String	**Definition**: Solution. **Range**: 0 to 4,096 characters.

Example Requests

Batch delete tags from resources. The following is an example request.

```
POST /v2/{project_id}/{resource_type}/{resource_id}/tags/delete

{
  "tags" : [ {
    "key" : "key1",
    "value" : "value1"
  } ],
  "sys_tags" : [ {
    "key" : "_sys_enterprise_project_id",
    "value" : "01049549-82cd-4b2b-9733-ddb94350c125"
  } ]
}
```

Example Responses

Status code: 204

None

Status code: 400

```
{
  "error_code" : "AIDataLake.00010151",
  "error_msg" : "Parameter value is invalid.",
  "solution_msg" : "Please input valid parameter value."
}
```

Status code: 401

```
{
  "error_code" : "APIGW.0301",
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail.",
  "solution_msg" : "Check whether the IAM authentication information is correct."
}
```

Status code: 403

```
{
  "error_code" : "AIDataLake.00010150",
  "error_msg" : "The operation is not allowed.",
  "solution_msg" : "Check whether the operation is allowed in the current status."
}
```

Status code: 404

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```
{
  "error_code" : "AIDataLake.00010009",
  "error_msg" : "No resources found.",
  "solution_msg" : "Ensure the requested resource exists and the parameters are correct."
}
```

Status code: 408

```
{
  "error_code" : "common.00000408",
  "error_msg" : "timeout exception occurred",
  "solution_msg" : "Try again later. If the problem persists, contact technical support."
}
```

Status code: 500

```
{
  "error_code" : "AIDataLake.00011001",
  "error_msg" : "Internal error.",
  "solution_msg" : "Contact technical support or try again later."
}
```

Status Codes

Status Code	Description
204	Request succeeded.
400	Invalid request parameters.
401	Unauthorized.
403	Access denied.
404	Resource not found.
408	Request timeout.
500	Internal server error.

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18 Permissions and Supported Actions

18.1 Introduction

This section describes how to use Identity and Access Management (IAM) to perform fine-grained permission management on AI DataLake. If your Huawei Cloud account does not need individual IAM users, skip this section.

With IAM, you can control access to Huawei Cloud resources from principals (IAM users, user groups, IAM agencies, or trust agencies). IAM supports role/policy-based authorization and identity policy-based authorization.

The following table describes the differences between these two authorization models.

Table 18-1 Differences between role/policy-based and identity policy-based authorization

Authorization Model	Core Relationship	Permissions	Authorization Method	Description
Role/Policy	User-permission-authorization scope	• System-defined roles • System-defined policies • Custom policies	Granting roles or policies to principals	To authorize a user, you need to add it to a user group first and then specify the scope of authorization. It is hard to provide fine-grained permissions control using authorization by user groups and a limited number of condition keys. This method is suitable for small- and medium-sized enterprises.

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Authorization Model	Core Relationship	Permissions	Authorization Method	Description
Identity policy-based authorization	Policies	• System-defined policies • Custom policies	• Granting policies to principals • Attaching policies to principals	You can authorize a user by attaching an identity policy to it. User-specific authorization and a variety of key conditions allow for more fine-grained permissions control. However, this model can be hard to set up. It requires a certain amount of expertise and is suitable for medium- and large-sized enterprises.

Assume that you want to grant IAM users permission to create ECSs in CN North-Beijing4 and OBS buckets in CN South-Guangzhou. With role/policy-based authorization, the administrator needs to create two custom policies and assign both to the IAM users. With identity policy-based authorization, the administrator only needs to create one custom identity policy and configure the condition key **g:RequestedRegion** for the policy, and then attach the policy to the principals or grant the principals the access permissions to the specified regions. Identity policy-based authorization is more flexible than role/policy-based authorization.

Policies/identity policies and actions in the two authorization models are not interoperable. You are advised to use the identity policy-based authorization model.

If you use IAM users in your account to call an API, the IAM users must be granted the required permissions. The required permissions are determined by the actions supported by the API. Only users with the policies allowing for those actions can call the API successfully.

18.2 Actions Supported by Policy-based Authorization

This section describes the actions, resources, and conditions supported by AI DataLake in policy-based authorization.

Actions

AI DataLake provides system-defined policies that can be directly used in IAM. You can also create custom policies to supplement system-defined policies for more refined access control. Operations supported by policies are specific to APIs. The following are common concepts related to policies:

- 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.

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- Actions: specific operations that are allowed or denied in a custom policy.
- Dependencies: actions which a specific action depends on. When allowing an action for a user, you also need to allow any existing action dependencies for that user.
- IAM projects/Enterprise projects: the authorization scope of a custom policy. A custom policy can be applied to IAM projects or enterprise projects or both. Policies that contain actions for both IAM and enterprise projects can be used and applied for both IAM and Enterprise Management. Policies that contain actions only for IAM projects can be used and applied to IAM only. Administrators can check whether an action supports IAM projects or enterprise projects in the action list. For details about the differences between IAM and enterprise management, see **Differences Between IAM and Enterprise Management**

The following table lists the actions that you can define in policy statements for AI DataLake.

- **AuraSQL Job Management**
- **RayJob Management**
- **Spark Job Management**
- **Spark SQL Job Management**
- **SparkOperators Operation Management**
- **Flink Job Management**
- **Flink Savepoint Management**
- **Flink Job Autoscaling Management**
- **Workspace Management**
- **Compute Resource Management**
- **Endpoint Management**
- **Tenant Image Management**
- **Image Snapshot Management**
- **TMS Management**
- **Ray Federation Endpoint Management**

AuraSQL Job Management

Table 18-2 AuraSQL job management actions

Permission	API	Action	Dependency	IAM Project	Enterprise Project
Creating a SQL session	POST /v2/workspaces/{workspace_id}/aura-sessions	DataArtsFabric:workspace:createSqlSession	-	√	×

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Permission	API	Action	Dependency	IAM Project	Enterprise Project
Listing SQL sessions	GET /v2/workspaces/{workspace_id}/aura-sessions	DataArtsFabric:workspace:listSqlSessions	DataArtsFabric:endpoint:show	√	×
Viewing SQL session details	GET /v2/workspaces/{workspace_id}/aura-sessions/{session_id}	DataArtsFabric:workspace:showSqlSession	DataArtsFabric:endpoint:show	√	×
Closing a SQL session	DELETE /v2/workspaces/{workspace_id}/aura-sessions/{session_id}	DataArtsFabric:workspace:deleteSqlSession	-	√	×
Executing SQL statements under a specified session	POST /v2/workspaces/{workspace_id}/aura-sessions/statements	DataArtsFabric:workspace:executeStatement	DataArtsFabric:endpoint:show	√	×
Viewing SQL execution results	GET /v2/workspaces/{workspace_id}/aura-sessions/{session_id}/statements/{statement_id}	DataArtsFabric:workspace:showStatementResult	DataArtsFabric:endpoint:show	√	×

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Permission	API	Action	Dependency	IAM Project	Enterprise Project
Canceling SQL execution	POST /v2/workspaces/{workspace_id}/aura-sessions/{session_id}/statements/{statement_id}/cancel	DataArtsFabric:workspace:cancelStatement	DataArtsFabric:endpoint:show	√	×
Viewing SQL execution records	GET /v2/workspaces/{workspace_id}/aura-statement-records	DataArtsFabric:workspace:listStatementRecords	DataArtsFabric:endpoint:show	√	×
Viewing the monitoring details of a statement	GET /v2/workspaces/{workspace_id}/aura-sessions/{session_id}/statements/{statement_id}/query-metrics	DataArtsFabric:workspace:listSessionStatementRecords	DataArtsFabric:endpoint:show	√	×
Viewing SQL execution records under a specified session	GET /v2/workspaces/{workspace_id}/aura-sessions/{session_id}/statements	DataArtsFabric:workspace:listSessionStatementRecords	DataArtsFabric:endpoint:show	√	×

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Permission	API	Action	Dependency	IAM Project	Enterprise Project
Viewing SQL execution operator monitoring records	GET /v2/workspaces/{workspace_id}/aura-sessions/{session_id}/statements/{statement_id}/operator-metrics	DataArtsFabric:workspace:listSessionStatementRecords	DataArtsFabric:endpoint:show	√	×

RayJob Management

Table 18-3 RayJob management actions

Permission	API	Action	Dependency	IAM Project	Enterprise Project
Running jobs	POST /v2/workspaces/{workspace_id}/ray-jobs	DataArtsFabric:rayJob:run	DataArtsFabric:image:showImage	√	×
Listing Ray jobs	GET /v2/workspaces/{workspace_id}/ray-jobs	DataArtsFabric:rayJob:list	-	√	×
Querying Ray job details	GET /v2/workspaces/{workspace_id}/ray-jobs/{job_id}	DataArtsFabric:rayJob:show	-	√	×

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Permission	API	Action	Dependency	IAM Project	Enterprise Project
Canceling a job run	POST /v2/workspaces/{workspace_id}/ray-jobs/{job_id}/cancel	DataArtsFabric:rayJob:cancel	-	√	×
Creating an interactive session	POST /v2/workspaces/{workspace_id}/ray-sessions	DataArtsFabric:raySession:create	DataArtsFabric:workspace:list	√	×
Closing an interactive session	DELETE /v2/workspaces/{workspace_id}/ray-sessions/{session_id}	DataArtsFabric:raySession:cancel	DataArtsFabric:workspace:list	√	×

Spark Job Management

Table 18-4 Spark job management actions

Permission	API	Action	Dependency	IAM Project	Enterprise Project
Querying the status of a Spark job	GET /v2/workspaces/{workspace_id}/spark-jobs/{job_id}/state	DataArtsFabric:sparkJob:show	DataArtsFabric:workspace:list	√	×

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Permission	API	Action	Dependency	IAM Project	Enterprise Project
Starting Spark jobs	POST /v2/workspaces/{workspace_id}/spark-jobs	DataArtsFabric:sparkJob:run	• DataArtsFabric:workspace:list • DataArtsFabric:endpoint:show • DataArtsFabric:endpoint:list	√	×
Listing Spark jobs	GET /v2/workspaces/{workspace_id}/spark-jobs	DataArtsFabric:sparkJob:list	• DataArtsFabric:workspace:list • DataArtsFabric:endpoint:list	√	×
Viewing Spark job details	GET /v2/workspaces/{workspace_id}/spark-jobs/{job_id}	DataArtsFabric:sparkJob:show	DataArtsFabric:workspace:list	√	×
Canceling Spark job execution	POST /v2/workspaces/{workspace_id}/spark-jobs/{job_id}/cancel	DataArtsFabric:sparkJob:stop	DataArtsFabric:workspace:list	√	×

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Spark SQL Job Management

Table 18-5 Spark SQL job management actions

Permission	API	Action	Dependency	IAM Project	Enterprise Project
Querying the status of a Spark SQL job	GET /v2/workspaces/{workspace_id}/spark-sqls/{statement_id}/state	DataArtsFabric:sparkSql:show	DataArtsFabric:workspace:list	√	×
Listing Spark SQL jobs	GET /v2/workspaces/{workspace_id}/spark-sqls	DataArtsFabric:sparkSql:list	• DataArtsFabric:workspace:list • DataArtsFabric:endpoint:list	√	×
Viewing Spark SQL job details	GET /v2/workspaces/{workspace_id}/spark-sqls/{statement_id}	DataArtsFabric:sparkSql:show	DataArtsFabric:workspace:list	√	×
Canceling Spark SQL job execution	POST /v2/workspaces/{workspace_id}/spark-sqls/{statement_id}/cancel	DataArtsFabric:sparkSql:stop	DataArtsFabric:workspace:list	√	×

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Permission	API	Action	Dependency	IAM Project	Enterprise Project
Executing a Spark SQL job	POST /v2/workspaces/{workspace_id}/spark-sqls	DataArtsFabric:sparkSql:run	• DataArtsFabric:workspace:list • DataArtsFabric:endpoint:show • DataArtsFabric:endpoint:list	√	×
Previewing Spark SQL job query results	POST /v2/workspaces/{workspace_id}/spark-sqls/{statement_id}/preview	DataArtsFabric:sparkSql:show	DataArtsFabric:workspace:list	√	×
Restarting a Spark SQL cluster	POST /v2/workspaces/{workspace_id}/endpoints/{endpoint_name}/spark-sqls/restart-cluster	DataArtsFabric:endpoint:restart	• DataArtsFabric:workspace:list • DataArtsFabric:endpoint:show • DataArtsFabric:endpoint:list	√	×

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SparkOperators Operation Management

Table 18-6 SparkOperators operation management actions

Permission	API	Action	Dependency	IAM Project	Enterprise Project
Obtaining the status of a Spark asynchronous operation	POST /v2/workspaces/{workspace_id}/spark-operators/{operation_id}/show-state	DataArtsFabric:sparkOperator:show	DataArtsFabric:workspace:list	√	×

Flink Job Management

Table 18-7 Flink job management actions

Permission	API	Action	Dependency	IAM Project	Enterprise Project
Creating a Flink job	POST /v2/workspaces/{workspace_id}/flink-jobs	DataArtsFabric:flinkJob:run	• DataArtsFabric:workspace:list • DataArtsFabric:endpoint:show • DataArtsFabric:endpoint:list	√	×
Canceling Flink job execution	POST /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/cancel	DataArtsFabric:flinkJob:stop	DataArtsFabric:workspace:list	√	×

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Permission	API	Action	Dependency	IAM Project	Enterprise Project
Viewing Flink job details	GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}	DataArtsFabric:flinkJob:show	DataArtsFabric:workspace:list	√	×
Querying Flink job status	GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/state	DataArtsFabric:flinkJob:show	DataArtsFabric:workspace:list	√	×
Listing Flink jobs	GET /v2/workspaces/{workspace_id}/flink-jobs	DataArtsFabric:flinkJob:list	• DataArtsFabric:workspace:list • DataArtsFabric:endpoint:list	√	×
Listing Flink job event details	GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/events	DataArtsFabric:flinkJob:show	DataArtsFabric:workspace:list	√	×

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Flink Savepoint Management

Table 18-8 Flink savepoint management actions

Permission	API	Action	Dependency	IAM Project	Enterprise Project
Creating a Flink job savepoint	POST /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/flink-savepoints	DataArtsFabric:flinkSavepoint:create	DataArtsFabric:workspace:list	√	×
Listing Flink job savepoints	GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/flink-savepoints	DataArtsFabric:flinkSavepoint:list	DataArtsFabric:workspace:list	√	×
Querying Flink job savepoint details	GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/flink-savepoints/{savepoint_id}	DataArtsFabric:flinkSavepoint:show	DataArtsFabric:workspace:list	√	×
Deleting a Flink job savepoint	DELETE /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/flink-savepoints/{savepoint_id}	DataArtsFabric:flinkSavepoint:delete	DataArtsFabric:workspace:list	√	×

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Flink Job Autoscaling Management

Table 18-9 Flink job autoscaling management actions

Permission	API	Action	Dependency	IAM Project	Enterprise Project
Hot-updating Flink job autoscaling configuration	PUT /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/autoscaling-policy	DataArtsFabric:flinkJobAutoscalingPolicy:update	DataArtsFabric:workspace:list	√	×
Querying Flink job autoscaling configuration	GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/autoscaling-policy	DataArtsFabric:flinkJobAutoscalingPolicy:show	DataArtsFabric:workspace:list	√	×
Querying Flink job autoscaling history	GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/autoscaling-histories	DataArtsFabric:flinkJobAutoscalingHistory:list	DataArtsFabric:workspace:list	√	×

Workspace Management

Table 18-10 Workspace management actions

Permission	API	Action	Dependency	IAM Project	Enterprise Project
Creating workspaces	POST /v2/workspaces	DataArtsFabric:workspace:create	lakeformation:instance:show	√	√
Listing workspaces	GET /v2/workspaces	DataArtsFabric:workspace:list	-	√	√

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Permission	API	Action	Dependency	IAM Project	Enterprise Project
Querying workspace details	GET /v2/workspaces/{workspace_id}	DataArtsFabric:workspace:list	-	√	√
Updating a workspace	PUT /v2/workspaces/{workspace_id}	DataArtsFabric:workspace:alter	lakeformation:instance:show	√	×
Deleting a workspace	DELETE /v2/workspaces/{workspace_id}	DataArtsFabric:workspace:drop	-	√	×

Compute Resource Management

Table 18-11 Compute resource management actions

Permission	API	Action	Dependency	IAM Project	Enterprise Project
Creating compute resources	POST /v2/workspaces/{workspace_id}/computes	DataArtsFabric:workspace:createCompute	-	√	×
Listing compute resources	GET /v2/workspaces/{workspace_id}/computes	DataArtsFabric:workspace:listCompute	-	√	×
Obtaining details about a compute resource	GET /v2/workspaces/{workspace_id}/computes/{compute_id}	DataArtsFabric:workspace:listCompute	-	√	×

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Permission	API	Action	Dependency	IAM Project	Enterprise Project
Listing compute resource operation records	GET /v2/workspaces/{workspace_id}/computes/versions	DataArtsFabric:workspace:listCompute	-	√	×
Deleting compute resources	DELETE /v2/workspaces/{workspace_id}/computes/{compute_id}	DataArtsFabric:workspace:dropCompute	-	√	×
Updating a compute resource	PUT /v2/workspaces/{workspace_id}/computes/{compute_id}	DataArtsFabric:workspace:alterCompute	-	√	×
Querying monitoring information of a compute resource pool	GET /v2/workspaces/{workspace_id}/computes/metrics	DataArtsFabric:workspace:listComputeMetrics	-	√	×

Endpoint Management

Table 18-12 Endpoint management actions

Permission	API	Action	Dependency	IAM Project	Enterprise Project
Querying endpoints	GET /v2/workspaces/{workspace_id}/endpoints	DataArtsFabric:endpoint:list	-	√	×

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Permission	API	Action	Dependency	IAM Project	Enterprise Project
Listing all endpoints	GET /v2/endpoints	DataArtsFabric:endpoint:list	-	√	×
Creating an endpoint	POST /v2/workspaces/{workspace_id}/endpoints	DataArtsFabric:endpoint:create	• obs:bucket:listBucketVersions • obs:bucket:listAllMyBuckets • obs:bucket:listBucket	√	×
Querying details of an endpoint	GET /v2/workspaces/{workspace_id}/endpoints/{endpoint_id}	DataArtsFabric:endpoint:show	-	√	×
Obtaining endpoint monitoring data	GET /v2/workspaces/{workspace_id}/endpoints/{endpoint_id}/metrics	DataArtsFabric:endpoint:show	-	√	×
Updating an endpoint	PUT /v2/workspaces/{workspace_id}/endpoints/{endpoint_id}	DataArtsFabric:endpoint:alter	-	√	×

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Permission	API	Action	Dependency	IAM Project	Enterprise Project
Deleting an endpoint	DELETE /v2/workspaces/{workspace_id}/endpoints/{endpoint_id}	DataArtsFabric:endpoint:drop	• DataArtsFabric:job:listJobInstance • DataArtsFabric:service:listInstance	√	×
Querying endpoint configuration restrictions	GET /v2/workspaces/{workspace_id}/endpoint-limit	DataArtsFabric:endpoint:showResourceLimit	-	√	×

Tenant Image Management

Table 18-13 Tenant image management actions

Permission	API	Action	Dependency	IAM Project	Enterprise Project
Registering a custom image	POST /v2/images	DataArtsFabric:image:registerImage	-	√	×
Listing custom images	GET /v2/images	DataArtsFabric:image:listImages	-	√	×
Adding a custom image version	POST /v2/images/{image_id}/versions	DataArtsFabric:image:registerImage	-	√	×
Querying a custom image version	GET /v2/images/{image_id}/versions/{version_id}	DataArtsFabric:image:showImage	-	√	×

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Permission	API	Action	Dependency	IAM Project	Enterprise Project
Deleting a specified image version	DELETE /v2/images/{image_id}/versions/{version_id}	DataArtsFabric:image:deleteImage	-	√	×
Deleting all versions of an image	DELETE /v2/images/{image_id}	DataArtsFabric:image:deleteImage	-	√	×
Querying image details	GET /v2/images/{image_id}	DataArtsFabric:image:showImage	-	√	×
Listing custom image versions	GET /v2/images/{image_id}/versions	DataArtsFabric:image:showImage	-	√	×
Updating a custom image version	PUT /v2/images/{image_id}/versions/{version_id}	DataArtsFabric:image:updateImage	-	√	×

Image Snapshot Management

Table 18-14 Image snapshot management actions

Permission	API	Action	Dependency	IAM Project	Enterprise Project
Listing image snapshots	GET /v2/image-snapshots	DataArtsFabric:image:listSnapshots	-	√	×
Creating an image snapshot	POST /v2/images/{image_id}/versions/{version_id}/image-snapshots	DataArtsFabric:image:createSnapshot	-	√	×

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Permission	API	Action	Dependency	IAM Project	Enterprise Project
Deleting an image snapshot	DELETE /v2/images/{image_id}/versions/{version_id}/image-snapshots/{image_snapshot_id}	DataArtsFabric:image:deleteSnapshot	-	√	×

TMS Management

Table 18-15 TMS management actions

Permission	API	Action	Dependency	IAM Project	Enterprise Project
Querying project tags	GET /v2/{project_id}/{resource_type}/tags	DataArtsFabric::listTags	DataArtsFabric:workspace:list	√	×
Listing resource instances	POST /v2/{project_id}/{resource_type}/resource-instances/filter	DataArtsFabric::listResourcesByTag	DataArtsFabric:workspace:list	√	√
Querying the number of resource instances	POST /v2/{project_id}/{resource_type}/resource-instances/count	DataArtsFabric::listResourcesByTag	DataArtsFabric:workspace:list	√	√
Querying resource tags	GET /v2/{project_id}/{resource_type}/{resource_id}/tags	DataArtsFabric::listTagsForResource	DataArtsFabric:workspace:list	√	×

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Permission	API	Action	Dependency	IAM Project	Enterprise Project
Batch adding resource tags	POST /v2/{project_id}/{resource_type}/{resource_id}/tags/create	DataArtsFabric::tagResource	DataArtsFabric:workspace:list	√	×
Batch deleting resource tags	POST /v2/{project_id}/{resource_type}/{resource_id}/tags/delete	DataArtsFabric::unTagResource	DataArtsFabric:workspace:list	√	×

Ray Federation Endpoint Management

Table 18-16 Ray Federation endpoint management actions

Permission	API	Action	Dependency	IAM Project	Enterprise Project
Listing Ray Federation endpoints	GET /v2/workspaces/{workspace_id}/ray-federations	DataArtsFabric:federation:list	-	√	×
Creating a Ray Federation endpoint	POST /v2/workspaces/{workspace_id}/ray-federations	DataArtsFabric:federation:create	-	√	×
Querying Ray Federation endpoint details	GET /v2/workspaces/{workspace_id}/ray-federations/{ray_federation_id}	DataArtsFabric:federation:show	-	√	×

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Permission	API	Action	Dependency	IAM Project	Enterprise Project
Updating a Ray Federation endpoint	PUT /v2/workspaces/{workspace_id}/ray-federations/{ray_federation_id}	DataArtsFabric:federation:alter	-	√	×
Deleting a Ray Federation endpoint	DELETE /v2/workspaces/{workspace_id}/ray-federations/{ray_federation_id}	DataArtsFabric:federation:drop	-	√	×

18.3 Actions Supported by Identity Policy-based Authorization

IAM provides system-defined identity policies to define common actions supported by cloud services. You can also create custom identity policies using the actions supported by cloud services for more refined access control.

In addition to IAM, the **Organizations** service provides **Service Control Policies (SCPs)** to set access control policies.

SCPs do not actually grant any permissions to an entity. They only set the permissions boundary for the entity. When SCPs are attached to an organizational unit (OU) or a member account, the SCPs do not directly grant permissions to that OU or member account. Instead, the SCPs only determine what permissions are available for that member account or those member accounts under that OU. The granted permissions can be applied only if they are allowed by the SCPs.

To learn more about how IAM is different from Organizations for access control, see **What Are the Differences in Access Control Between IAM and Organizations?**.

This section describes the elements used by IAM custom identity policies and Organizations SCPs. The elements include actions, resources, and conditions.

- For details about how to use these elements to create an IAM custom identity policy, see **Creating a Custom Identity Policy**.
- For details about how to use these elements to create a custom SCP, see **Creating an SCP**.

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Actions

Actions are specific operations that are allowed or denied in an identity policy.

- The **Access Level** column describes how the action is classified (**List**, **Read**, or **Write**). This classification helps you understand the level of access that an action grants when you use it in a policy.
- The **Resource Type** column indicates whether the action supports resource-level permissions.
  - You can use a wildcard (*) to indicate all resource types. If this column is empty (-), the action does not support resource-level permissions and you must specify all resources ("*") in your identity policy statements.
  - If this column includes a resource type, you must specify the URN in the Resource element of your policy statements.
  - Required resources are marked with asterisks (*) in the table. If you specify a resource in a statement using this action, then it must be of this type.

  For details about the resource types defined by AI DataLake, see **Resources**.
- The **Condition Key** column contains keys that you can specify in the Condition element of an identity policy statement.
  - If the **Resource Type** column has values for an action, the condition key takes effect only for the listed resource types.
  - If the **Resource Type** column is empty (-) for an action, the condition key takes effect for all resources that action supports.
  - If the **Condition Key** column is empty (-) for an action, the action does not support any condition keys.

  For details about the condition keys defined by AI DataLake, see **Conditions**.
- The **Alias** column lists the policy actions that are configured in identity policies. With these actions, you can use APIs for policy-based authorization. For details, see **Policies and Identity Policies**.

The following table lists the actions that you can define in policy statements for AI DataLake.

Table 18-17 Actions supported by AI DataLake

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
DataArtsFabric:workspace:create	Grants permission to create workspaces.	Write	workspace *	-	-

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Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
			-	• g:RequestTag/<tag-key> • g:TagKeys • g:EnterpriseProjectId	
DataArtsFabric:workspace:list	Grants permission to list workspaces.	List	workspace *	-	-
DataArtsFabric:workspace:alter	Grants permission to modify workspaces.	Write	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
DataArtsFabric:workspace:drop	Grants permission to delete workspaces.	Write	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
DataArtsFabric:workspace:createCompute	Grants permission to create compute resources.	Write	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
DataArtsFabric:workspace:listCompute	Grants permission to query compute resources.	List	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-

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Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
DataArtsFabric:workspace:dropCompute	Grants permission to delete compute resources.	Write	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
DataArtsFabric:workspace:alterCompute	Grants permission to modify compute resources.	Write	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
DataArtsFabric:workspace:listComputeMetrics	Grants permission to query compute resource metrics.	List	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
DataArtsFabric:endpoint:list	Grants permission to query the endpoint list of a workspace.	List	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
			endpoint *	-	
DataArtsFabric:endpoint:create	Grants permission to create endpoints for a workspace.	Write	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
			endpoint *	-	

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Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
DataArtsFabric:endpoint:alter	Grants permission to modify the endpoints of a workspace.	Write	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
			endpoint *	-	
DataArtsFabric:endpoint:drop	Grants permission to delete endpoints under a workspace.	Write	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
			endpoint *	-	
DataArtsFabric:endpoint:showResourceLimit	Grants permission to query resource limits of a resource pool.	Read	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
DataArtsFabric:endpoint:show	Grants permission to query the endpoint details of a workspace.	Read	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
			endpoint *	-	
DataArtsFabric::tagResource	Grants permission to create tags.	Tagging	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	DataArtsFabric:workspace:tagResource

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Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
			-	• g:RequestTag/<tag-key> • g:TagKeys	
DataArtsFabric::unTagResource	Grants permission to delete tags.	Tagging	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	DataArtsFabric:workspace:unTagResource
			-	• g:RequestTag/<tag-key> • g:TagKeys	
DataArtsFabric::listTags	Grants permission to list tags.	List	-	-	DataArtsFabric:workspace:listTags
DataArtsFabric::listTagsForResource	Grants permission to query tags of a resource.	List	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	DataArtsFabric:workspace:listTagsForResource
DataArtsFabric::listResourcesByTag	Grants permission to query resources by tag.	List	-	g:TagKeys	DataArtsFabric:workspace:listResourcesByTag
DataArtsFabric:image:listImages	Grants permission to list images.	List	image *	-	-
DataArtsFabric:image:registerImage	Grants permission to register an image.	Write	image *	-	-

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Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
DataArtsFabric:image:deleteImage	Grants permission to delete an image.	Write	image *	-	-
DataArtsFabric:image:showImage	Grants permission to query image details.	Read	image *	-	-
DataArtsFabric:image:updateImage	Grants permission to update an image.	Write	image *	-	-
DataArtsFabric:image:listSnapshots	Grants permission to list image snapshots.	List	image *	-	-
DataArtsFabric:image:createSnapshot	Grants permission to create an image snapshot.	Write	image *	-	-
DataArtsFabric:image:deleteSnapshot	Grants permission to delete an image snapshot.	Write	image *	-	-
DataArtsFabric:workspace:createSqlSession	Grants permission to create a SQL session.	Write	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
			endpoint *	-	

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Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
DataArtsFabric:workspace:executeStatement	Grants permission to execute a statement.	Write	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
			endpoint *	-	
DataArtsFabric:workspace:showStatementResult	Grants permission to query statement results.	Read	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
			endpoint *	-	
DataArtsFabric:workspace:showSqlSession	Grants permission to query SQL session information.	Read	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
			endpoint *	-	
DataArtsFabric:workspace:listSqlSessions	Grants permission to list SQL sessions.	List	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
			endpoint *	-	
DataArtsFabric:workspace:listSessionStatementRecords	Grants permission to query statement history records under a session.	List	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-

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Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
DataArtsFabric:workspace:listStatementRecords	Grants permission to query statement history records.	List	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
			endpoint *	-	
DataArtsFabric:workspace:deleteSqlSession	Grants permission to delete a SQL session.	Write	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
			endpoint *	-	
DataArtsFabric:workspace:cancelStatement	Grants permission to cancel the execution of a statement.	Write	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
			endpoint *	-	
DataArtsFabric:sparkJob:run	Grants permission to run a Spark job.	Write	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
			endpoint *	-	
DataArtsFabric:sparkJob:list	Grants permission to list Spark jobs.	List	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
			endpoint *	-	

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Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
DataArtsFabric:sparkJob:show	Grants permission to query Spark jobs.	Read	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
DataArtsFabric:sparkJob:stop	Grants permission to stop a Spark job.	Write	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
DataArtsFabric:sparkSql:run	Grants permission to run a Spark SQL job.	Write	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
			endpoint *	-	
DataArtsFabric:sparkSql:list	Grants permission to list Spark SQL jobs.	List	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
			endpoint *	-	
DataArtsFabric:sparkSql:show	Grants permission to query a Spark SQL job.	Read	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-

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Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
DataArtsFabric:sparkSql:stop	Grants permission to stop a Spark SQL job.	Write	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
DataArtsFabric:endpoint:restart	Grants permission to restart the endpoint of a workspace.	Write	-	-	-
DataArtsFabric:sparkOperator:show	Grants permission to query the SparkOperator of a workspace.	Read	-	-	-
DataArtsFabric:flinkJob:show	Grants permission to query a Flink job.	Read	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
DataArtsFabric:flinkJob:run	Grants permission to run a Flink job.	Write	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
			endpoint *	-	
DataArtsFabric:flinkJob:stop	Grants permission to stop a Flink job.	Write	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-

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Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
DataArtsFabric:flinkJob:list	Grants permission to list Flink jobs.	List	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
			endpoint *	-	
DataArtsFabric:flinkSavepoint:create	Grants permission to create a Flink snapshot.	Write	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
DataArtsFabric:flinkSavepoint:list	Grants permission to list Flink snapshots.	List	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
DataArtsFabric:flinkSavepoint:show	Grants permission to query a Flink snapshot.	Read	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
DataArtsFabric:flinkSavepoint:delete	Grants permission to delete a Flink snapshot.	Write	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-

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Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
DataArtsFabric:flinkJobAutoscalingPolicy:update	Grants permission to update the automatic tuning configuration of a Flink job.	Write	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
DataArtsFabric:flinkJobAutoscalingPolicy:show	Grants permission to query the automatic tuning configuration of a Flink job.	Read	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-
DataArtsFabric:flinkJobAutoscalingHistory:list	Grants permission to query the automatic tuning history of a Flink job.	List	workspace *	• g:ResourceTag/<tag-key> • g:EnterpriseProjectId	-

Each API of AI DataLake usually supports one or more actions. **Table 18-18** lists the supported actions and dependencies.

Table 18-18 Actions and dependencies

API	Action	Dependency
POST /v2/workspaces/{workspace_id}/aura-sessions	DataArtsFabric:workspace:createSqlSession	-
GET /v2/workspaces/{workspace_id}/aura-sessions/{session_id}	DataArtsFabric:workspace:showSqlSession	DataArtsFabric:endpoint:show

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API	Action	Dependency
DELETE /v2/workspaces/{workspace_id}/aura-sessions/{session_id}	DataArtsFabric:workspace:deleteSqlSession	-
POST /v2/workspaces/{workspace_id}/aura-sessions/statements	DataArtsFabric:workspace:executeStatement	DataArtsFabric:endpoint:show
GET /v2/workspaces/{workspace_id}/aura-sessions/{session_id}/statements/{statement_id}	DataArtsFabric:workspace:showStatementResult	DataArtsFabric:endpoint:show
POST /v2/workspaces/{workspace_id}/aura-sessions/{session_id}/statements/{statement_id}/cancel	DataArtsFabric:workspace:cancelStatement	DataArtsFabric:endpoint:show
GET /v2/workspaces/{workspace_id}/aura-statement-records	DataArtsFabric:workspace:listStatementRecords	DataArtsFabric:endpoint:show
GET /v2/workspaces/{workspace_id}/aura-sessions	DataArtsFabric:workspace:listSqlSessions	DataArtsFabric:endpoint:show
GET /v2/workspaces/{workspace_id}/aura-sessions/{session_id}/statements	DataArtsFabric:workspace:listSessionStatementRecords	DataArtsFabric:endpoint:show

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API	Action	Dependency
GET /v2/workspaces/{workspace_id}/aura-sessions/{session_id}/statements/{statement_id}/query-metrics	DataArtsFabric:workspace:listSessionStatementRecords	DataArtsFabric:endpoint:show
GET /v2/workspaces/{workspace_id}/aura-sessions/{session_id}/statements/{statement_id}/operator-metrics	DataArtsFabric:workspace:listSessionStatementRecords	DataArtsFabric:endpoint:show
POST /v2/workspaces/{workspace_id}/spark-sqls/{statement_id}/cancel	DataArtsFabric:sparkSql:stop	DataArtsFabric:workspace:list
GET /v2/workspaces/{workspace_id}/spark-sqls/{statement_id}/state	DataArtsFabric:sparkSql:show	DataArtsFabric:workspace:list
GET /v2/workspaces/{workspace_id}/spark-sqls	DataArtsFabric:sparkSql:list	• DataArtsFabric:workspace:list • DataArtsFabric:endpoint:list
GET /v2/workspaces/{workspace_id}/spark-sqls/{statement_id}	DataArtsFabric:sparkSql:show	DataArtsFabric:workspace:list
POST /v2/workspaces/{workspace_id}/spark-sqls/{statement_id}/preview	DataArtsFabric:sparkSql:show	DataArtsFabric:workspace:list

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API	Action	Dependency
POST /v2/workspaces/{workspace_id}/spark-sqls	DataArtsFabric:sparkSql:run	• DataArtsFabric:workspace:list • DataArtsFabric:endpoint:show • DataArtsFabric:endpoint:list
GET /v2/workspaces/{workspace_id}/spark-jobs/{job_id}/state	DataArtsFabric:sparkJob:show	DataArtsFabric:workspace:list
POST /v2/workspaces/{workspace_id}/spark-jobs	DataArtsFabric:sparkJob:run	• DataArtsFabric:workspace:list • DataArtsFabric:endpoint:show • DataArtsFabric:endpoint:list
GET /v2/workspaces/{workspace_id}/spark-jobs	DataArtsFabric:sparkJob:list	• DataArtsFabric:workspace:list • DataArtsFabric:endpoint:list
GET /v2/workspaces/{workspace_id}/spark-jobs/{job_id}	DataArtsFabric:sparkJob:show	DataArtsFabric:workspace:list
POST /v2/workspaces/{workspace_id}/spark-jobs/{job_id}/cancel	DataArtsFabric:sparkJob:stop	DataArtsFabric:workspace:list
POST /v2/workspaces/{workspace_id}/endpoints/{endpoint_name}/spark-sqls/restart-cluster	DataArtsFabric:endpoint:restart	• DataArtsFabric:workspace:list • DataArtsFabric:endpoint:show • DataArtsFabric:endpoint:list
POST /v2/workspaces/{workspace_id}/spark-operators/{operation_id}/show-state	DataArtsFabric:sparkOperator:show	DataArtsFabric:workspace:list

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API	Action	Dependency
POST /v2/workspaces	DataArtsFabric:workspace:create	lakeformation:instance:show
GET /v2/workspaces	DataArtsFabric:workspace:list	-
GET /v2/workspaces/{workspace_id}	DataArtsFabric:workspace:list	-
PUT /v2/workspaces/{workspace_id}	DataArtsFabric:workspace:alter	lakeformation:instance:show
DELETE /v2/workspaces/{workspace_id}	DataArtsFabric:workspace:drop	-
POST /v2/workspaces/{workspace_id}/computes	DataArtsFabric:workspace:createCompute	-
GET /v2/workspaces/{workspace_id}/computes	DataArtsFabric:workspace:listCompute	-
GET /v2/workspaces/{workspace_id}/computes/{compute_id}	DataArtsFabric:workspace:listCompute	-
GET /v2/workspaces/{workspace_id}/computes/versions	DataArtsFabric:workspace:listCompute	-
DELETE /v2/workspaces/{workspace_id}/computes/{compute_id}	DataArtsFabric:workspace:dropCompute	-
PUT /v2/workspaces/{workspace_id}/computes/{compute_id}	DataArtsFabric:workspace:alterCompute	-

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API	Action	Dependency
GET /v2/workspaces/{workspace_id}/computes/metrics	DataArtsFabric:workspace:listComputeMetrics	-
GET /v2/workspaces/{workspace_id}/endpoints	DataArtsFabric:endpoint:list	-
GET /v2/endpoints	DataArtsFabric:endpoint:list	-
POST /v2/workspaces/{workspace_id}/endpoints	DataArtsFabric:endpoint:create	• obs:bucket:listBucketVersions • obs:bucket:listAllMyBuckets • obs:bucket:listBucket
GET /v2/workspaces/{workspace_id}/endpoints/{endpoint_id}	DataArtsFabric:endpoint:show	-
GET /v2/workspaces/{workspace_id}/endpoints/{endpoint_id}/metrics	DataArtsFabric:endpoint:show	-
PUT /v2/workspaces/{workspace_id}/endpoints/{endpoint_id}	DataArtsFabric:endpoint:alter	-
DELETE /v2/workspaces/{workspace_id}/endpoints/{endpoint_id}	DataArtsFabric:endpoint:drop	• DataArtsFabric:job:listJobInstance • DataArtsFabric:service:listInstance
GET /v2/workspaces/{workspace_id}/endpoint-limit	DataArtsFabric:endpoint:showResourceLimit	-
GET /v2/images	DataArtsFabric:image:listImages	-
POST /v2/images	DataArtsFabric:image:registerImage	-

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API	Action	Dependency
DELETE /v2/images/{image_id}	DataArtsFabric:image:deleteImage	-
GET /v2/images/{image_id}	DataArtsFabric:image:showImage	-
GET /v2/images/{image_id}/versions	DataArtsFabric:image:listImages	-
POST /v2/images/{image_id}/versions	DataArtsFabric:image:registerImage	-
DELETE /v2/images/{image_id}/versions/{version_id}	DataArtsFabric:image:deleteImage	-
GET /v2/images/{image_id}/versions/{version_id}	DataArtsFabric:image:showImage	-
PUT /v2/images/{image_id}/versions/{version_id}	DataArtsFabric:image:updateImage	-
GET /v2/image-snapshots	DataArtsFabric:image:listSnapshots	-
POST /v2/images/{image_id}/versions/{version_id}/image-snapshots	DataArtsFabric:image:createSnapshot	-
DELETE /v2/images/{image_id}/versions/{version_id}/image-snapshots/{image_snapshot_id}	DataArtsFabric:image:deleteSnapshot	-
GET /v2/{project_id}/{resource_type}/tags	DataArtsFabric::listTags	DataArtsFabric:workspace:list

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API	Action	Dependency
POST /v2/{project_id}/{resource_type}/resource-instances/filter	DataArtsFabric::listResourcesByTag	DataArtsFabric:workspace:list
POST /v2/{project_id}/{resource_type}/resource-instances/count	DataArtsFabric::listResourcesByTag	DataArtsFabric:workspace:list
GET /v2/{project_id}/{resource_type}/{resource_id}/tags	DataArtsFabric::listTagsForResource	DataArtsFabric:workspace:list
POST /v2/{project_id}/{resource_type}/{resource_id}/tags/create	DataArtsFabric::tagResource	DataArtsFabric:workspace:list
POST /v2/{project_id}/{resource_type}/{resource_id}/tags/delete	DataArtsFabric::unTagResource	DataArtsFabric:workspace:list
GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}	DataArtsFabric:flinkJob:show	DataArtsFabric:workspace:list
GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/state	DataArtsFabric:flinkJob:show	DataArtsFabric:workspace:list
POST /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/cancel	DataArtsFabric:flinkJob:stop	DataArtsFabric:workspace:list
GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/events	DataArtsFabric:flinkJob:show	DataArtsFabric:workspace:list

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API	Action	Dependency
POST /v2/workspaces/{workspace_id}/flink-jobs	DataArtsFabric:flinkJob:run	• DataArtsFabric:workspace:list • DataArtsFabric:endpoint:show • DataArtsFabric:endpoint:list
GET /v2/workspaces/{workspace_id}/flink-jobs	DataArtsFabric:flinkJob:list	• DataArtsFabric:workspace:list • DataArtsFabric:endpoint:list
POST /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/flink-savepoints	DataArtsFabric:flinkSavepoint:create	DataArtsFabric:workspace:list
GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/flink-savepoints	DataArtsFabric:flinkSavepoint:list	DataArtsFabric:workspace:list
GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/flink-savepoints/{savepoint_id}	DataArtsFabric:flinkSavepoint:show	DataArtsFabric:workspace:list
DELETE /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/flink-savepoints/{savepoint_id}	DataArtsFabric:flinkSavepoint:delete	DataArtsFabric:workspace:list
GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/autoscaling-policy	DataArtsFabric:flinkJobAutoscalingPolicy:show	DataArtsFabric:workspace:list
PUT /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/autoscaling-policy	DataArtsFabric:flinkJobAutoscalingPolicy:update	DataArtsFabric:workspace:list

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API	Action	Dependency
GET /v2/workspaces/{workspace_id}/flink-jobs/{job_id}/autoscaling-histories	DataArtsFabric:flinkJobAutoscalingHistory:list	DataArtsFabric:workspace:list

Resources

A resource type (Resource) defines the resources on which an identity policy takes effect. In Table 18-19, if a specific operation has an associated resource type, then in the identity policy statement containing that operation, the policy will only take effect on the specified resource when the corresponding resource URN is provided. If no resource URN is specified, the policy will apply to all resources under the designated resource type. If no resource type is defined, the default value of **Resource** is *, meaning the policy applies to all resources. You can also set condition keys in an identity policy to define resource types.

The following table lists the resource types that you can define in identity policy statements for AI DataLake.

Table 18-19 Resource types supported by AI DataLake

Resource Type	URN
workspace	DataArtsFabric:<region>:<account-id>:workspace:<workspace-id>
endpoint	DataArtsFabric:<region>:<account-id>:endpoint:<workspace-id>/<endpoint-id>
image	DataArtsFabric:<region>:<account-id>:image:<image-id>

Conditions

AI DataLake does not support service-specific condition keys in identity policies. AI DataLake can use global condition keys applicable to all services. For details, see **Global Condition Keys**.

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19 Appendix

19.1 Status Codes

Table 19-1 describes status codes.

Table 19-1 Status codes

Status Code	Message	Description
100	Continue	The client should continue with its request. This interim response is used to inform the client that the initial part of the request has been received and has not yet been rejected by the server.
101	Switching Protocols	The protocol should be switched. The protocol can only be switched to a newer protocol. For example, switch to a new version of the HTTP protocol.
200	OK	The request has been fulfilled.
201	Created	The request has been fulfilled and a new resource has been created.
202	Accepted	The request has been accepted, but the processing has not been completed.
203	Non-Authoritative Information	The server has successfully processed the request, but is returning information that may be from another source.

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Status Code	Message	Description
204	NoContent	The request has been successfully processed, and the HTTP response does not contain a response body. This status code is returned when responding to an HTTP request using the OPTIONS method.
205	Reset Content	The server has fulfilled the request, but the requester is required to reset the content.
206	Partial Content	The server has successfully processed the partial GET request.
300	Multiple Choices	There are multiple options for the location of the requested resource. The response contains a list of resource characteristics and addresses from which a user terminal (such as a browser) can choose the most appropriate one.
301	Moved Permanently	The requested resource has been assigned a new permanent URI, and the new URI is contained in the response.
302	Found	The requested resource resides temporarily under a different URI.
303	See Other	The server is redirecting the client to a different address. It can be retrieved by using a GET or POST method.
304	Not Modified	The requested resource has not been modified. When the server returns this status code, it does not return any resources.
305	Use Proxy	The requested resource is available only through a proxy.
306	Unused	This HTTP status code has been deprecated.
400	BadRequest	The request is invalid. The client should not repeat the request without modifications.

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Status Code	Message	Description
401	Unauthorized	This status code is returned after the client provides the authentication information, indicating that the authentication information is incorrect or invalid.
402	Payment Required	This status code is reserved for future use.
403	Forbidden	The server understood the request, but is refusing to fulfill it. The client should not repeat the request without modifications.
404	NotFound	The requested resource cannot be found. The client should not repeat the request without modifications.
405	MethodNotAllowed	A request method is not supported for the requested resource. The client should not repeat the request without modifications.
406	Not Acceptable	The server cannot fulfill the request according to the content characteristics of the request.
407	Proxy Authentication Required	This status code is similar to 401, but indicates that the client must first authenticate itself with the proxy.
408	Request Time-out	The server has timed out waiting for the request. The client may repeat the request without modifications at a later time.
409	Conflict	The request could not be processed due to a conflict with the current state of the resource. This status code indicates that the resource that the client is attempting to create already exists, or that the request has failed to be processed because of the update of the conflict request.

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Status Code	Message	Description
410	Gone	The resource requested by the client no longer exists. This status code indicates that the requested resource has been permanently deleted.
411	Length Required	The server is refusing to process the request without a defined **Content-Length**.
412	Precondition Failed	The server did not meet one of the preconditions that the requester put on the request.
413	Request Entity Too Large	The server is refusing to process a request because the request entity is too large for the server to process. The server may close the connection to prevent the client from continuing the request. If the server is only temporarily unable to process the request, the response will contain a **Retry-After** header field.
414	Request-URI Too Large	The Request-URI is too long for the server to process.
415	Unsupported Media Type	The server is unable to process the media format in the request.
416	Requested range not satisfiable	The requested range is invalid.
417	Expectation Failed	The server has failed to meet the requirements of the **Expect** request-header field.
422	UnprocessableEntity	The request is well-formed but is unable to be processed due to semantic errors.
429	TooManyRequests	The client has sent excessive number of requests to the server within a given time (exceeding the limit on the access frequency of the client), or the server has received an excessive number of requests within a given time (beyond its processing capability). In this case, the client should resend the request after the time specified in the **Retry-After** header of the response has elapsed.

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Status Code	Message	Description
500	InternalServerError	The server is able to receive the request but unable to understand it.
501	Not Implemented	The server does not support the function required to fulfill the request.
502	Bad Gateway	The server was acting as a gateway or proxy and received an invalid request from the remote server.
503	ServiceUnavailable	The requested service is invalid. The client should not repeat the request without modifications.
504	ServerTimeout	The request cannot be fulfilled within a given time. This status code is returned to the client only if the **Timeout** parameter is specified in the request.
505	HTTP Version not supported	The server does not support the HTTP protocol version used in the request and cannot complete the processing.

19.2 Error Codes

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

Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.01011001	Invalid parameter {xxx}.	Invalid parameter {xxx}.	Please check the input parameters according to the documentation({xxx}).
400	AIDataLake.01031001	job type {xxx} does not match parameter {xxx}.	job type {xxx} does not match parameter {xxx}.	Job type {xxx} requires parameter {xxx}, please check if the request parameters are correct.
400	AIDataLake.01031002	Spark {xxx} {xxx} does not exist.	Spark {xxx} {xxx} does not exist.	Please check if spark {xxx} {xxx} is entered correctly.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.01031003	Spark job {xxx} already finished, cannot perform this operation.	Spark job {xxx} already finished, cannot perform this operation.	Spark job {xxx} already finished, cannot perform this operation.
400	AIDataLake.01031004	Submit log for Spark job {xxx} does not exist.	Submit log for Spark job {xxx} does not exist.	Please check if the submit log has been cleaned up or failed to upload to OBS.
400	AIDataLake.01031005	Failed to read submit log for Spark job {xxx}.	Failed to read submit log for Spark job {xxx}.	An error occurred while reading the submit log, please contact administrator.
400	AIDataLake.01031006	Endpoint {xxx} has reached maximum pending limit ({xxx}) for restart strategy {xxx}.	Endpoint {xxx} has reached maximum pending limit ({xxx}) for restart strategy {xxx}.	Endpoint {xxx} has reached the maximum pending operation limit ({xxx}) for {xxx}. Please wait for existing operations to complete or try a different strategy.
400	AIDataLake.01031007	Operation {xxx} does not exist.	Operation {xxx} does not exist.	Please check if operation {xxx} is entered correctly.
400	AIDataLake.01031101	spark sql job {xxx} does not exist.	spark sql job {xxx} does not exist.	Please check if spark sql job {xxx} is entered correctly or has been deleted.
400	AIDataLake.01031102	spark sql job {xxx} not succeed. state is {xxx}.	spark sql job {xxx} not succeed. state is {xxx}.	Please check if spark sql job {xxx} status can be succeeded.
400	AIDataLake.01031103	spark sql preview failed. {xxx}.	spark sql preview failed. {xxx}.	Please retry or contact administrator.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.01031104	spark sql job {xxx} not query sql no result.	spark sql job {xxx} not query sql no result.	Please check if spark sql job {xxx} is query sql.
400	AIDataLake.01031105	spark sql job {xxx} already finished, cannot perform this operation.	spark sql job {xxx} already finished, cannot perform this operation.	spark sql job {xxx} already finished, cannot perform this operation.
400	AIDataLake.01031201	Spark job {xxx} is starting.	Spark job {xxx} is starting.	Please wait for the job to running before accessing Spark UI.
400	AIDataLake.01031202	Spark job {xxx} stopped before running, Spark UI was never available.	Spark job {xxx} stopped before running, Spark UI was never available.	Spark UI is only available while the job is running. Please check the job logs for details.
400	AIDataLake.01031203	Spark job {xxx} is no longer running, Spark UI is not available. Please check History UI.	Spark job {xxx} is no longer running, Spark UI is not available. Please check History UI.	Spark UI is no longer available after the job stops running. Please check History UI for historical information.
400	AIDataLake.01031204	Spark SQL job {xxx} is starting.	Spark SQL job {xxx} is starting.	Please wait for the SQL job to running before accessing Spark UI.
400	AIDataLake.01031205	Spark SQL job {xxx} stopped before running, Spark UI was never available.	Spark SQL job {xxx} stopped before running, Spark UI was never available.	Spark UI is only available while the SQL job is running. Please check the job logs for details.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.01031206	Spark SQL job {xxx} is no longer running, Spark UI is not available. Please check History UI.	Spark SQL job {xxx} is no longer running, Spark UI is not available. Please check History UI.	Spark UI is no longer available after the SQL job stops running. Please check History UI for historical information.
400	AIDataLake.01032001	Endpoint {xxx} does not exist in workspace {xxx}.	Endpoint {xxx} does not exist in workspace {xxx}.	Please check if endpoint {xxx} or workspace {xxx} is correct.
400	AIDataLake.01032002	Endpoint {xxx} status {xxx} invalid.	Endpoint {xxx} status {xxx} invalid.	Please check endpoint {xxx}, current status is {xxx}, must be RUNNING or PENDING or CREATING or ON_DEMAND_FROZEN.
400	AIDataLake.01032003	Please check endpoint {xxx} engine type, expected type is {xxx}, actual type is {xxx}.	Please check endpoint {xxx} engine type, expected type is {xxx}, actual type is {xxx}.	Please check endpoint {xxx} engine type, expected type is {xxx}, actual type is {xxx}.
400	AIDataLake.01032004	Workspace {xxx} does not exist.	Workspace {xxx} does not exist.	Please check if workspace {xxx} is correct.
400	AIDataLake.01032005	Endpoint {xxx} has reached max concurrent jobs limit, max {xxx}, active {xxx}.	Endpoint {xxx} has reached max concurrent jobs limit, max {xxx}, active {xxx}.	Please wait for existing jobs to complete, or contact administrator to increase concurrency limit.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.01011004	Catalog {xxx} does not exist in workspace {xxx}.	Catalog {xxx} does not exist in workspace {xxx}.	Please check if catalog {xxx} name is correct, or check the catalog list in workspace {xxx}.
400	AIDataLake.01042001	Endpoint {xxx} does not exist in workspace {xxx}.	Endpoint {xxx} does not exist in workspace {xxx}.	Please check if endpoint {xxx} or workspace {xxx} is correct.
400	AIDataLake.01042002	Endpoint {xxx} status {xxx} invalid.	Endpoint {xxx} status {xxx} invalid.	Please check endpoint {xxx}, current status is {xxx}, must be RUNNING or PENDING or CREATING or ON_DEMAND_FROZEN.
400	AIDataLake.01042003	Please check endpoint {xxx} engine type, expected type is {xxx}, actual type is {xxx}.	Please check endpoint {xxx} engine type, expected type is {xxx}, actual type is {xxx}.	Please check endpoint {xxx} engine type, expected type is {xxx}, actual type is {xxx}.
400	AIDataLake.01042004	Image version unavailable.	Image version unavailable.	Please available image version.
400	AIDataLake.01043001	Metastore {xxx} does not exist.	Metastore {xxx} does not exist.	Please check if metastore {xxx} exists and is correctly configured.
400	AIDataLake.01043003	Failed to show agreement rule.	Failed to show agreement rule.	Please check if the agreement rule configuration is correct.
400	AIDataLake.01043004	Agency {xxx} does not exist.	Agency {xxx} does not exist.	Please check if agency {xxx} exists and is correctly authorized.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.01043005	Agency {xxx} is not allowed for job submission.	Agency {xxx} is not allowed for job submission.	Agency {xxx} is a system management agency and cannot be used for job submission. Please use a different agency.
400	AIDataLake.01050001	Flink bad request.	Flink bad request.	Please check the Flink request parameters.
400	AIDataLake.01051002	Flink job {xxx} in state {xxx} cannot be cancelled.	Flink job {xxx} in state {xxx} cannot be cancelled.	Please check if Flink job {xxx} is in a cancellable state (STARTING or RUNNING).
400	AIDataLake.01051003	Endpoint {xxx} has reached max concurrent Flink jobs limit, max {xxx}, active {xxx}.	Endpoint {xxx} has reached max concurrent Flink jobs limit, max {xxx}, active {xxx}.	Please wait for existing Flink jobs to complete, or contact administrator to increase concurrency limit.
400	AIDataLake.01051102	Another Savepoint is in progress for job {xxx}.	Another Savepoint is in progress for job {xxx}.	Please check if another Savepoint is in progress for job {xxx}, or try again later.
400	AIDataLake.01051103	Savepoint in state {xxx} cannot be deleted.	Savepoint in state {xxx} cannot be deleted.	Please check if Savepoint status {xxx} can be deleted, or try again later.
400	AIDataLake.01051105	Flink job {xxx} is not running current state: {xxx} cannot create Savepoint.	Flink job {xxx} is not running current state: {xxx} cannot create Savepoint.	Please ensure Flink job {xxx} is in RUNNING state before creating Savepoint.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.01051202	Endpoint {xxx} has reached max concurrent Flink session clusters limit, max {xxx}, active {xxx}.	Endpoint {xxx} has reached max concurrent Flink session clusters limit, max {xxx}, active {xxx}.	Please wait for existing Flink session clusters to complete, or contact administrator to increase concurrency limit.
400	AIDataLake.01051901	User is not allowed to set the following Flink config keys: {xxx}.	User is not allowed to set the following Flink config keys: {xxx}.	User is not allowed to set the following Flink config keys: {xxx}. Please remove these configs.
401	AIDataLake.01011002	Token does not exist.	Token does not exist.	Please check if the api call is missing a Token.
401	AIDataLake.01011003	Auth Token not exists in header.	Auth Token not exists in header.	Please check if auth Token is included in the request header.
403	AIDataLake.01011005	Current account has no permission.	Current account has no permission.	Please connect administrators to add permission.
403	AIDataLake.01043002	Failed to obtain agency credential.	Failed to obtain agency credential.	Please check if the agency credential configuration is correct.
403	AIDataLake.01051902	Resource {xxx} does not belong to workspace {xxx}.	Resource {xxx} does not belong to workspace {xxx}.	Please verify that resource {xxx} belongs to workspace {xxx}.
404	AIDataLake.01051001	Flink job {xxx} does not exist.	Flink job {xxx} does not exist.	Please check if Flink job {xxx} is entered correctly or has been deleted.

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Status Code	Error Codes	Error Message	Description	Solution
404	AIDataLake.01051101	Flink savepoint {xxx} does not exist.	Flink savepoint {xxx} does not exist.	Please check if Flink savepoint {xxx} is entered correctly or has been deleted.
404	AIDataLake.01051104	Savepoint {xxx} does not match the specified resource.	Savepoint {xxx} does not match the specified resource.	Please verify that Savepoint {xxx} belongs to the specified workspaceId or jobId.
404	AIDataLake.01051201	Flink session {xxx} does not exist.	Flink session {xxx} does not exist.	Please check if Flink session {xxx} is entered correctly or has been deleted.
403	AIDataLake.00010150	The operation is not allowed	The operation is not allowed	Check whether the operation is allowed in the current status.
500	AIDataLake.00011001	The health check on the management console failed.	The health check on the management console failed.	Expand the specifications when the CPU or memory is insufficient. Check the status of peripheral services. Restart the pod on the management plane.
400	AIDataLake.01011010	current account has no permission.	current account has no permission.	Please connect administrators to add permission
400	AIDataLake.01031106	Auth token does not exist in header.	Auth token does not exist in header.	Please check if the auth token exists in the request header.
400	AIDataLake.01041001	Ray job name {xxx} byte length {xxx} exceeds database limit {xxx}.	Ray job name {xxx} byte length {xxx} exceeds database limit {xxx}.	Ray job name {xxx} byte length {xxx} exceeds database limit {xxx}, please shorten the name.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.01041002	Ray job {xxx} does not exist.	Ray job {xxx} does not exist.	Please check if ray job {xxx} is entered correctly.
400	AIDataLake.01041003	Ray job {xxx} config does not exist.	Ray job {xxx} config does not exist.	Please check if ray job {xxx} config is entered correctly.
400	AIDataLake.01041004	Ray job {xxx} already finished, cannot perform this operation.	Ray job {xxx} already finished, cannot perform this operation.	Ray job {xxx} already finished, cannot perform this operation.
400	AIDataLake.01041005	Ray job name {xxx} already exists in the workspace.	Ray job name {xxx} already exists in the workspace.	Please check if Ray job name {xxx} already exists in the workspace, or try using another name.
400	AIDataLake.01041006	Ray job resource specification is invalid. {xxx}	Ray job resource specification is invalid. {xxx}	Please check if CPU and memory configuration meets CCE-AP specification requirements. {xxx}
400	AIDataLake.01041007	Ray job configuration has invalid value. {xxx}	Ray job configuration has invalid value. {xxx}	Please check if your configuration value already exists or is valid. {xxx}
400	AIDataLake.01041008	Ray job access denied.	Ray job access denied.	Please check if you have permission to access this Ray job.
400	AIDataLake.00010002	The instance cannot process requests because it is not running.	The instance cannot process requests because it is not running.	Send the request when the instance is running.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010007	Resource clearing task ID {xxx} error.	Resource clearing task ID {xxx} error.	Check the task ID.
400	AIDataLake.00010010	Incorrect {xxx}.	Incorrect {xxx}.	Enter a correct {xxx}.
400	AIDataLake.00010011	Invalid specification code.	Invalid specification code.	Enter a correct specification code.
400	AIDataLake.00010015	Connected clients reach the upper limit.	Connected clients reach the upper limit.	Delete idle access clients and re-create them, or contact O&M personnel to increase the upper limit.
400	AIDataLake.00010016	The VPC ID must be specified in the default system access mode.	The VPC ID must be specified in the default system access mode.	Check the VPC ID.
400	AIDataLake.00010017	The subnet ID must be specified in the default system access mode.	The subnet ID must be specified in the default system access mode.	Check the regional node ID.
400	AIDataLake.00010018	Access connection is mandatory in the custom access mode.	Access connection is mandatory in the custom access mode.	Check the access connection list.
400	AIDataLake.00010019	Only running access clients can be deleted.	Only running access clients can be deleted.	Delete the client after it changes to the running state.
400	AIDataLake.00010021	Failed to delete instances in the current state.	Failed to delete instances in the current state.	Delete the cluster after the cluster status changes.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010022	The feature [{xxx}] is restricted and is open only to whitelisted customers.	The feature [{xxx}] is restricted and is open only to whitelisted customers.	Contact O&M personnel to whitelist you.
400	AIDataLake.00010023	Invalid time format in the parameter.	Invalid time format in the parameter.	Invalid time format.
400	AIDataLake.00010025	The quota service failed due to {xxx}.	The quota service failed due to {xxx}.	Check whether the updated quota meets requirements.
400	AIDataLake.00010027	Tags for a single instance exceeds the upper limit [{xxx}].	Tags for a single instance exceeds the upper limit [{xxx}].	Check the number of tags corresponding to the instance.
400	AIDataLake.00010029	Null members are not allowed in the tag list.	Null members are not allowed in the tag list.	Check the members in the tag list.
400	AIDataLake.00010030	Null members are not allowed in the condition list.	Null members are not allowed in the condition list.	Check the members in the condition list.
400	AIDataLake.00010031	Null values are not allowed in the member value list of the tag list.	Null values are not allowed in the member value list of the tag list.	Check the member values in the tag list.
400	AIDataLake.00010032	Null member values are not allowed in the tag list.	Null member values are not allowed in the tag list.	Check the member values in the tag list.
400	AIDataLake.00010033	Null member values are not allowed in the condition list.	Null member values are not allowed in the condition list.	Check the member values in the condition list.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010034	System tags cannot be deleted in batches.	System tags cannot be deleted in batches.	Select another tag operation.
400	AIDataLake.00010036	System labels cannot be empty.	System labels cannot be empty.	Check system tag parameters.
400	AIDataLake.00010037	System labels and labels cannot be used concurrently.	System labels and labels cannot be used concurrently.	Select a system tag or tag.
400	AIDataLake.00010039	Incorrect user or tenant information.	Incorrect user or tenant information.	Enter correct user or tenant information.
400	AIDataLake.00010040	Incorrect configuration name.	Incorrect configuration name.	Enter a correct configuration name and check whether the configuration is at the system or region level.
400	AIDataLake.00010042	Shared instances are not supported.	Shared instances are not supported.	Create an exclusive instance or contact O&M personnel.
400	AIDataLake.00010044	A user instance is in use in the cluster.	A user instance is in use in the cluster.	Release the instances associated with the cluster first.
400	AIDataLake.00010046	API traffic limit threshold reached.	API traffic limit threshold reached.	Try again later.
400	AIDataLake.00010047	Failed to upgrade the cluster due to {xxx}.	Failed to upgrade the cluster due to {xxx}.	Refresh and try again. Check whether the cluster status is normal.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010048	System configuration {xxx} cannot be modified.	System configuration {xxx} cannot be modified.	Check the O&M user's system configuration {xxx} and operation permission.
400	AIDataLake.00010049	Invalid parameter, with value of {xxx}.	Invalid parameter, with value of {xxx}.	Check whether the parameter is valid.
400	AIDataLake.00010051	No permission for sending messages.	No permission for sending messages.	Check whether the configuration is correct.
400	AIDataLake.00010052	The user has not agreed to the Service Statement	The user has not agreed to the Service Statement	You need to agree to the Service Statement before continuing
400	AIDataLake.00010053	The current tenant has instances and cannot cancel the authorization.	The current tenant has instances and cannot cancel the authorization.	Delete the tenant's all instances (including instances in the recycle bin) and cancel the authorization.
400	AIDataLake.00010054	The metadata type of a logical multi-tenant cluster cannot be hivemetastore.	The metadata type of a logical multi-tenant cluster cannot be hivemetastore.	Change the metadata type.
400	AIDataLake.00010055	Only non-shared instances support specification change.	Only non-shared instances support specification change.	Select a non-shared instance to continue the specification change.
400	AIDataLake.00010056	Only scale-out is supported.	Only scale-out is supported.	Select a higher instance specification.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010057	Default instance setting failed because it is already a default instance.	Default instance setting failed because it is already a default instance.	You do not need to set this instance as the default instance.
400	AIDataLake.00010059	Access tenant unauthorized.	Access tenant unauthorized.	Check whether the access tenant has been authorized.
400	AIDataLake.00010061	Failed to perform this operation because the cluster is not running.	Failed to perform this operation because the cluster is not running.	Check the cluster status.
400	AIDataLake.00010064	The number of {xxx} has reached the upper limit {xxx}.	The number of {xxx} has reached the upper limit {xxx}.	Delete idle tasks and re-create them, or contact O&M personnel to increase the upper limit.
400	AIDataLake.00010065	Risk check failed.	Risk check failed.	Check your balance.
400	AIDataLake.00010070	create prepaid instance failed. error code: {xxx}, error message: {xxx}.	create prepaid instance failed. error code: {xxx}, error message: {xxx}.	Please Try again based on the failure cause.
400	AIDataLake.00010071	The product is not found. spec code: {xxx}.	The product is not found. spec code: {xxx}.	Please purchase an existing product.
400	AIDataLake.00010072	The product id not found.	The product id not found.	Please try again.
400	AIDataLake.00010074	prepaid instance cannot be directly delete.	prepaid instance cannot be directly delete.	Please unsubscribe by console or user center.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010078	The instance not found in recycle bin.	The instance not found in recycle bin.	Please wait until the instance is deleted or try again.
400	AIDataLake.00010079	The instance is being recovered and cannot be deleted.	The instance is being recovered and cannot be deleted.	Please wait until the instance is recovered and try again.
400	AIDataLake.00010080	Can't create period instance.	Can't create period instance.	Please create ondemand instance or check cbc enable.
400	AIDataLake.00010081	Create application failed. error message: {xxx}	Create application failed. error message: {xxx}	Please Try again based on the failure cause.
400	AIDataLake.00010084	The job is running.	The job is running.	Please check the job status, and retry later.
400	AIDataLake.00010085	The job is not running.	The job is not running.	Please check the job status, and retry later.
400	AIDataLake.00010087	Instance id of the job cannot be modified.	Instance id of the job cannot be modified.	Please modify the job under {xxx} instance which the job is created.
400	AIDataLake.00010088	No default instance ID is configured in project {xxx} by tenant {xxx}.	No default instance ID is configured in project {xxx} by tenant {xxx}.	Check whether the default instance ID of the tenant is configured.
400	AIDataLake.00010090	Yaml file format error.	Yaml file format error.	Please check the yaml file's format.
400	AIDataLake.00010103	The task resource is queuing.	The task resource is queuing.	Please wait and try again.
400	AIDataLake.00010104	Client access mode is not auto.	Client access mode is not auto.	Please check the client access mode.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010105	Create application version failed, error message: {xxx}.	Create application version failed, error message: {xxx}.	Please try again based on the failure cause.
400	AIDataLake.00010106	Job doesn't exist in {xxx} instance.	Job doesn't exist in {xxx} instance.	Please try again after switching to {xxx} instance.
400	AIDataLake.00010107	Job is in unauthorized instance {xxx}.	Job is in unauthorized instance {xxx}.	Please try again after you are authorized in {xxx} instance.
400	AIDataLake.00010108	Job is in nonexistent instance {xxx}.	Job is in nonexistent instance {xxx}.	Please try again after recovering {xxx} instance, or create new job in existing instance.
400	AIDataLake.00010109	Instance can not be deleted.	Instance can not be deleted.	Please delete all access clients of the shared instance first.
400	AIDataLake.00010110	SMN message verification failed.	SMN message verification failed.	Check whether the message content is tampered with.
400	AIDataLake.00010111	Job parameter {xxx} does not exist.	Job parameter {xxx} does not exist.	Please create or edit job such that it has parameter {xxx}.
400	AIDataLake.00010112	Instance can not be deleted due to running migration job.	Instance can not be deleted due to running migration job.	Please try again when the job stops.
400	AIDataLake.00010113	The instance is being changed. Instance name: {xxx); Instance id: {xxx}.	The instance is being changed. Instance name: {xxx); Instance id: {xxx}.	The instance is being changed, please wait.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010114	Only prepaid instances support.	Only prepaid instances support.	Please check the official website document and invoke the correct API.
400	AIDataLake.00010115	Failed to scale up the instance. error code: {xxx}, error message: {xxx}.	Failed to scale up the instance. error code: {xxx}, error message: {xxx}.	Please check the error cause or contact O&M personnel.
400	AIDataLake.00010116	The qps spec parameter is empty.	The qps spec parameter is empty.	Please check the input parameters.
400	AIDataLake.00010118	Feature is not supported.	Feature is not supported.	The feature is not supported. Please look out for version updates.
400	AIDataLake.00010119	The current instance does not support lifecycle configuration.	The current instance does not support lifecycle configuration.	Please try another instance.
400	AIDataLake.00010120	Unsupported data source type {xxx}.	Unsupported data source type {xxx}.	Please check the data source type.
400	AIDataLake.00010121	Unsupported policy type {xxx}.	Unsupported policy type {xxx}.	Please check the policy type.
400	AIDataLake.00010123	Unsupported migration network type.	Unsupported migration network type.	Please check the migration network type.
400	AIDataLake.00010124	The SMN service passed in an invalid confirmation subscription or certificate URL.	The SMN service passed in an invalid confirmation subscription or certificate URL.	Enter a URL of the HTTPS type.
400	AIDataLake.00010125	Error dlf access endpoint.	Error dlf access endpoint.	Please check the dlf access endpoint.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010126	Only running shared instance support.	Only running shared instance support.	Please check status of the instance.
400	AIDataLake.00010128	Sync object is null.	Sync object is null.	Please check the parameter sync objects of the job.
400	AIDataLake.00010133	Failed to register with the CAP, {xxx}.	Failed to register with the CAP, {xxx}.	Please check whether the CAP information is correct.
400	AIDataLake.00010135	The cluster ID or session is incorrect.	The cluster ID or session is incorrect.	Please enter the correct information.
400	AIDataLake.00010136	The number of subnets exceeds the limit.	The number of subnets exceeds the limit.	Please check input.
400	AIDataLake.00010137	Delete cap failed, {xxx}.	Delete cap failed, {xxx}.	Please check cap is shared status, and set current version of cap to null.
400	AIDataLake.00010138	Create endpoint deployment failed. error message: {xxx}.	Create endpoint deployment failed. error message: {xxx}.	Locate the cause based on the log information, or contact O&M personnel.
400	AIDataLake.00010142	Failed to create the service agency: {xxx}.	Failed to create the service agency: {xxx}.	Please check the agency or custom policy quota or apply for a new quota and try again.
400	AIDataLake.00010143	{xxx} cannot be created due to insufficient resources.	{xxx} cannot be created due to insufficient resources.	Please check your resources status available or make sure you are using less than what you have left.
400	AIDataLake.00010145	Type error, {xxx}.	Type error, {xxx}.	Please check type of input.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010146	The current version cannot be deleted.	The current version cannot be deleted.	Please try again when the version is not current version.
400	AIDataLake.00010149	Public resources cannot be deleted.	Public resources cannot be deleted.	Please confirm that the resource is not public before deleting it.
400	AIDataLake.00010150	Operation is not allowed for request endpoint.	Operation is not allowed for request endpoint.	Please confirm the endpoint is not default, and only name/ description updated for useOnDemandResource endpoint.
400	AIDataLake.00010151	Parameter {xxx} value is invalid.	Parameter {xxx} value is invalid.	Please input valid parameter value: {xxx}.
400	AIDataLake.00010152	Can not delete endpoint with job run, service instance or sql session exists.	Can not delete endpoint with job run, service instance or sql session exists.	Please delete all the job runs, service instances and sql session on this endpoint, and try again.
400	AIDataLake.00010154	Unsupported authorized source type: {xxx}.	Unsupported authorized source type: {xxx}.	The following resource types are supported: {xxx}.
400	AIDataLake.00010155	The current workspace has {xxx} resource and cannot delete.	The current workspace has {xxx} resource and cannot delete.	Delete the workspaces all {xxx} resource and delete.
400	AIDataLake.00010159	The OBS path to be authorized does not exist or is not a parallel file system: {xxx}.	The OBS path to be authorized does not exist or is not a parallel file system: {xxx}.	Please check input obs location.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010163	Unsupported policy type: {xxx}.	Unsupported policy type: {xxx}.	Enter the correct policy type by referring to the API document on the official website.
400	AIDataLake.00010164	Can't delete required policy: {xxx}.	Can't delete required policy: {xxx}.	Please check input.
400	AIDataLake.00010165	Unsupported message type: {xxx}.	Unsupported message type: {xxx}.	Enter the correct message type by referring to the API document on the official website.
400	AIDataLake.00010166	Unsupported notify type: {xxx}.	Unsupported notify type: {xxx}.	Enter the correct notify type by referring to the API document on the official website.
400	AIDataLake.00010168	The number of message notification policies in the current workspace has reached the upper limit: {xxx}.	The number of message notification policies in the current workspace has reached the upper limit: {xxx}.	Please delete redundant notification policies and create a new one.
400	AIDataLake.00010170	No notification policy is found, policy id: {xxx}.	No notification policy is found, policy id: {xxx}.	Please enter the ID of an existing policy.
400	AIDataLake.00010172	Unsupported period callback operationType {xxx}.	Unsupported period callback operationType {xxx}.	Please check input operation.
400	AIDataLake.00010173	Unsupported Enterprise Project ID {xxx}.	Unsupported Enterprise Project ID {xxx}.	Please check input enterprise_project_id.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010174	The resource currently in use cannot be deleted.	The resource currently in use cannot be deleted.	Please try again when resource is not in use.
400	AIDataLake.00010175	Public version cannot be deleted.	Public version cannot be deleted.	Please confirm that the resource is not public before deleting the version.
400	AIDataLake.00010176	The number of workspaces created in the current domain has reached the limit.	The number of workspaces created in the current domain has reached the limit.	Please delete idle workspaces and recreate them, or contact O&M personnel to increase the upper limit.
400	AIDataLake.00010179	Operate app instance failed:{xxx}.	Operate app instance failed:{xxx}.	Please check input.
400	AIDataLake.00010180	Instance is unreleasable frozen.	Instance is unreleasable frozen.	Please delete after the instance is unfrozen.
400	AIDataLake.00010181	Frozen instance change operation is limited, only basic info update allowed.	Frozen instance change operation is limited, only basic info update allowed.	Perform this operation after the instance is unfrozen.
400	AIDataLake.00010182	The endpoint is not on the specified engine.	The endpoint is not on the specified engine.	Check which engine the endpoint belongs to.
400	AIDataLake.00010183	Request resource exceed limit.	Request resource exceed limit.	Please check max resource limit config.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010184	The traffic diversion task cannot be submitted because traffic is being diverted to the endpoint.	The traffic diversion task cannot be submitted because traffic is being diverted to the endpoint.	Check whether traffic diversion has been performed on the endpoint.
400	AIDataLake.00010185	This feature is not available currently.	This feature is not available currently.	Contact the O&M personnel to confirm the feature capability set.
400	AIDataLake.00010186	Too many engine instances are created.	Too many engine instances are created.	Delete the existing engine instance and try again.
400	AIDataLake.00010187	An engine instance is in the Creating state.	An engine instance is in the Creating state.	Wait until an existing engine instance is created and try again.
400	AIDataLake.00010188	The metastore cannot be modified after being added for the first time.	The metastore cannot be modified after being added for the first time.	Please check whether the metastore is changed.
400	AIDataLake.00010189	The version currently has been used by {xxx} and cannot be deleted.	The version currently has been used by {xxx} and cannot be deleted.	Please try again after delete all {xxx} that use the version.
400	AIDataLake.00010190	Job-related features are not enabled.	Job-related features are not enabled.	Contact O&M personnel to enable job features.
400	AIDataLake.00010191	Ray features are not enabled.	Ray features are not enabled.	Contact O&M personnel to enable ray features.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010192	The resource specification of endpoint cannot be modified.	The resource specification of endpoint cannot be modified.	The resource specification of endpoint cannot be modified.
400	AIDataLake.00010193	The value of param {xxx} is not supported yet.	The value of param {xxx} is not supported yet.	Please check input operation.
400	AIDataLake.00010194	The number of endpoints created in the current workspace has reached the limit.	The number of endpoints created in the current workspace has reached the limit.	Delete idle endpoints and create them again, or contact O&M personnel to increase the maximum number of endpoints.
400	AIDataLake.00010196	The ray cluster status is abnormal. Check the resource usage or consult O&M personnel.	The ray cluster status is abnormal. Check the resource usage or consult O&M personnel.	Check the resource usage or consult O&M personnel.
400	AIDataLake.00010197	The compute status is not running status.	The compute status is not running status.	Recover the compute status or create a new one after delete it.
400	AIDataLake.00010198	Compute resources do not meet the minimum requirements.	Compute resources do not meet the minimum requirements.	Please add {xxx} additional resources of the same specification, or try again after using computing resources with larger specifications.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010200	The compute number does not change after the update.	The compute number does not change after the update.	Please set the number of updated computing resources to be different from the number of current and try again.
400	AIDataLake.00010202	Ray Service features are not enabled.	Ray Service features are not enabled.	Contact O&M personnel to enable ray service features.
400	AIDataLake.00010203	Cache features are not enabled.	Cache features are not enabled.	Contact O&M personnel to enable cache features.
400	AIDataLake.00010204	The parameter {xxx} can not be empty.	The parameter {xxx} can not be empty.	Please check the input parameters.
400	AIDataLake.00010205	{xxx} already exists in the {xxx}.	{xxx} already exists in the {xxx}.	Do not use repeated {xxx}, please check the input parameters.
400	AIDataLake.00010208	The minimum number of endpoint specifications must be 0.	The minimum number of endpoint specifications must be 0.	Please check input.
400	AIDataLake.00010214	The number of network connections created in the current workspace has reached the limit.	The number of network connections created in the current workspace has reached the limit.	Delete idle network connections and create them again, or contact O&M personnel to increase the maximum number of endpoints.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010216	The current type Apu does not have permission to purchase.	The current type Apu does not have permission to purchase.	Please submit Huawei Cloud service tickets to enable the purchase permission for this type of Apu.
400	AIDataLake.00010217	Ray Network features are not enabled.	Ray Network features are not enabled.	Contact O&M personnel to enable ray network features.
400	AIDataLake.00010218	The requests and limits specifications {xxx} are inconsistent.	The requests and limits specifications {xxx} are inconsistent.	Please check the specifications of resources.
400	AIDataLake.00010219	The cap version is not in the normal state and cannot be set to the current version. id: {xxx}	The cap version is not in the normal state and cannot be set to the current version. id: {xxx}	Check whether the cap version is being created or deleted.
400	AIDataLake.00010220	The path: {xxx} {xxx} is not an OBS path.	The path: {xxx} {xxx} is not an OBS path.	Check the data info input path. Currently, only OBS are supported. Upload the model file to OBS first.
400	AIDataLake.00010221	Cache resource is unavailable.	Cache resource is unavailable.	Please check the resource status.
400	AIDataLake.00010222	Insufficient compute resources.	Insufficient compute resources.	Please purchase at least 2 compute resources.
400	AIDataLake.00010223	The work dir path of application: {xxx} is missing.	The work dir path of application: {xxx} is missing.	Please check the application {xxx} work dir path.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010224	The input path of data info is missing.	The input path of data info is missing.	Please check the data info input path.
400	AIDataLake.00010225	Purchase computing resources before using the cache.	Purchase computing resources before using the cache.	Purchase computing resources before using the cache.
400	AIDataLake.00010226	The number of caches in a workspace exceeds the upper limit {xxx}.	The number of caches in a workspace exceeds the upper limit {xxx}.	Contact O&M personnel to increase the quota.
400	AIDataLake.00010228	Deletion of cap version failed. The cap is public and cannot be deleted.	Deletion of cap version failed. The cap is public and cannot be deleted.	Please set cap visibility to private or contact the O&M personnel.
400	AIDataLake.00010229	Deletion of cap version failed. The cap has a current version and cannot be deleted.	Deletion of cap version failed. The cap has a current version and cannot be deleted.	Please set the current version of the cap to null.
400	AIDataLake.00010230	Deletion of cap version failed. The cap version is being used by other endpoints.	Deletion of cap version failed. The cap version is being used by other endpoints.	Please delete the other endpoint that is using this cap version.
400	AIDataLake.00010232	Format of yaml file is invalid.	Format of yaml file is invalid.	Please check yaml file.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010234	swr image {xxx} not exist, or missing permission for swr:repo:listRepoTags.	swr image {xxx} not exist, or missing permission for swr:repo:listRepoTags.	Please check whether the image exists and the swr:repo:listRepoTags permission.
400	AIDataLake.00010235	Sql Endpoint features are not enabled.	Sql Endpoint features are not enabled.	Contact O&M personnel to enable sql endpoint features.
400	AIDataLake.00010238	Preparing compute cannot be deleted.	Preparing compute cannot be deleted.	Please wait the computing resource preparation is complete.
400	AIDataLake.00010244	Failed to upgrade the engine instance.	Failed to upgrade the engine instance.	engine instance is not ready for upgrading.
400	AIDataLake.00010245	Unsupported engine type: {xxx}.	Unsupported engine type: {xxx}.	Please check the engine type.
400	AIDataLake.00010247	There are still engine instances being created, please try again later.	There are still engine instances being created, please try again later.	Please try again later.
400	AIDataLake.00010250	Cannot restart engineInstance because engineInstance status is {xxx}.	Cannot restart engineInstance because engineInstance status is {xxx}.	Please check the status of engine instance by instanceId: {xxx}.
400	AIDataLake.00010251	The number of supernode requests is empty.	The number of supernode requests is empty.	Please input the number of required nodes.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010252	Deletion of cap version failed. The cap version is being used by other engine instances.	Deletion of cap version failed. The cap version is being used by other engine instances.	Please delete the other engine instance that is using this cap version.
400	AIDataLake.00010253	Failed to create obs bucket:{xxx}.	Failed to create obs bucket:{xxx}.	Check whether the OBS service is supported and whether the OBS service permission is correct, or contact O&M personnel.
400	AIDataLake.00010254	Cannot delete app used by {xxx}.	Cannot delete app used by {xxx}.	Please delete the {xxx} that are using this app.
400	AIDataLake.00010259	Not enough unbound nodes found in cluster(id: {xxx}). Number of remaining unbound nodes is {xxx}.	Not enough unbound nodes found in cluster(id: {xxx}). Number of remaining unbound nodes is {xxx}.	Please expand the cluster or unbind and release unused nodes.
400	AIDataLake.00010260	Database instance delete failed, db {xxx} exists	Database instance delete failed, db {xxx} exists	Please manually delete the residual database or enable forced deletion in the configuration center.
400	AIDataLake.00010262	The {xxx} resource binding instance has reached its limit: {xxx}	The {xxx} resource binding instance has reached its limit: {xxx}	Please release or create new resources.
400	AIDataLake.00010263	The date parameter is invalid.	The date parameter is invalid.	Please check the input parameters.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010264	The number of SFS Turbo resource bindings exceeds the limit.	The number of SFS Turbo resource bindings exceeds the limit.	Please bind a different SFS Turbo.
400	AIDataLake.00010265	The path bound to SFS Turbo is invalid.	The path bound to SFS Turbo is invalid.	Please check Sfs Turbo bind path.
400	AIDataLake.00010266	The region-level configuration cannot be deleted because there are configurations with the same name at the domain and user levels under the region.	The region-level configuration cannot be deleted because there are configurations with the same name at the domain and user levels under the region.	Please delete all domain and user-level configurations in the region before deleting the region.
400	AIDataLake.00010268	Ray Job script {xxx} does not match command {xxx}.	Ray Job script {xxx} does not match command {xxx}.	Please check ray job script format \uFF1A{xxx}.
400	AIDataLake.00010269	Over max parallel create limit	Over max parallel create limit	Please wait other engine instance deploy finish.
400	AIDataLake.00010274	The metastoreID cannot be empty.	The metastoreID cannot be empty.	Please bind the lakeformation instance.
400	AIDataLake.00010276	Please ensure that the image has at least read permissions.	Please ensure that the image has at least read permissions.	Please ensure the image exists or at least you have pull access to it.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010277	The number of custom images registered by the user exceeds the upper limit.	The number of custom images registered by the user exceeds the upper limit.	Please delete some registered images and try again.
400	AIDataLake.00010278	Custom images with the same namespace, repository and tag are not allowed.	Custom images with the same namespace, repository and tag are not allowed.	Please modify the namespace or repository or tag and try again.
400	AIDataLake.00010279	The custom image is being used by an endpoint and cannot be deleted.	The custom image is being used by an endpoint and cannot be deleted.	Please release the endpoint using the custom image and try again.
400	AIDataLake.00010280	Only one network is allowed to be created in a workspace.	Only one network is allowed to be created in a workspace.	Please check network config.
400	AIDataLake.00010281	The network CIDR format is incorrect.	The network CIDR format is incorrect.	Please select a valid CIDR.
400	AIDataLake.00010282	A maximum of {xxx} endpoints can be created for an account.	A maximum of {xxx} endpoints can be created for an account.	Please delete invalid endpoints.
400	AIDataLake.00010283	An Aura job endpoint can have only one type of CPU specification.	An Aura job endpoint can have only one type of CPU specification.	Please select only one type of CPU specification.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010284	The resource specifications applied for by the endpoint: {xxx}. The resource exceeds the remaining capacity {xxx} of the dedicated resource pool. Unit: {xxx}.	The resource specifications applied for by the endpoint: {xxx}. The resource exceeds the remaining capacity {xxx} of the dedicated resource pool. Unit: {xxx}.	Please expand the resource pool or reduce the resource request.
400	AIDataLake.00010286	Invalid docker login cmd format.	Invalid docker login cmd format.	Invalid docker login cmd format.
400	AIDataLake.00010287	The imageUrl format error.	The imageUrl format error.	Please moodify the image URL and enter it again. The format must be registry/namespace/repository:tag.
400	AIDataLake.00010291	The maximum number of network connection has been reached.	The maximum number of network connection has been reached.	Please delete redundant network connection and try again.
400	AIDataLake.00010295	The same network connection already exists.	The same network connection already exists.	Please do not create duplicate network connection.
400	AIDataLake.00010298	Only one specification can be changed.	Only one specification can be changed.	Only one specification can be changed.
400	AIDataLake.00010299	The specification quantity is error.	The specification quantity is error.	Please change the specification quantity to a multiple of {xxx}.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010301	No network configuration has been created in this space.	No network configuration has been created in this space.	Please create a network configuration in the current workspace.
400	AIDataLake.00010302	The minimum and maximum values of an endpoint cannot be null, and the minimum value cannot be greater than the maximum value; If the use_ondemand_resource is false, the minimum value must be equal to the maximum value.	The minimum and maximum values of an endpoint cannot be null, and the minimum value cannot be greater than the maximum value; If the use_ondemand_resource is false, the minimum value must be equal to the maximum value.	Please ensure that the minimum value is not greater than the maximum value.
400	AIDataLake.00010305	A maximum of {xxx} storages can be created for an account.	A maximum of {xxx} storages can be created for an account.	Please delete invalid storage resource.
400	AIDataLake.00010306	The storage resource capacity must be a multiple of {xxx}.	The storage resource capacity must be a multiple of {xxx}.	The specified storage specification was not found.
400	AIDataLake.00010307	The storage resource capacity must be between {xxx} and {xxx}.	The storage resource capacity must be between {xxx} and {xxx}.	Please enter the correct storage resource capacity.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010308	The storage resource specifications {xxx} do not exist.	The storage resource specifications {xxx} do not exist.	Please enter the correct storage resource specifications.
400	AIDataLake.00010309	The storage resource capacity must be greater than current capacity {xxx}.	The storage resource capacity must be greater than current capacity {xxx}.	Please enter the correct expand storage capacity.
400	AIDataLake.00010311	The storage resource that is bound to an endpoint cannot be deleted.	The storage resource that is bound to an endpoint cannot be deleted.	Please delete the endpoint bound to the current storage resource and try again.
400	AIDataLake.00010313	Storage mount path is duplicated.	Storage mount path is duplicated.	Storage mount path cannot be duplicated, please check and try again.
400	AIDataLake.00010315	The storage mount path must start with /home/service/.	The storage mount path must start with /home/service/.	The storage mount path must start with /home/service/. Please check and try again.
400	AIDataLake.00010316	Ray endpoints must be configured with storage.	Ray endpoints must be configured with storage.	Ray endpoints must be configured with storage. Please check and try again.
400	AIDataLake.00010317	Only PFS(Parallel File System) bucket supported.	Only PFS(Parallel File System) bucket supported.	Please choose PFS(Parallel File System) bucket.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010318	The number of images (versions) exceeds the upper limit {xxx}.	The number of images (versions) exceeds the upper limit {xxx}.	Delete idle images (versions) and create them again, or contact O&M personnel to increase the upper limit.
400	AIDataLake.00010319	The number of resources cannot be less than the number of resources requested by the current endpoint.see the following information: {xxx}.	The number of resources cannot be less than the number of resources requested by the current endpoint.see the following information: {xxx}.	Please delete the idle endpoint.
400	AIDataLake.00010320	Worker group validation failed. The number of worker groups must be greater than 0 and less than 10.	Worker group validation failed. The number of worker groups must be greater than 0 and less than 10.	Worker group validation failed. The number of worker groups must be greater than 0 and less than 10. Please check and try again.
400	AIDataLake.00010321	The name of endpoint can not be changed.	The name of endpoint can not be changed.	Endpoint name can not be changed.
400	AIDataLake.00010322	Image architecture should compatible with compute.	Image architecture should compatible with compute.	Image architecture should compatible with compute.
400	AIDataLake.00010324	Image type must be AURA_JOB.	Image type must be AURA_JOB.	Image type must be AURA_JOB.
400	AIDataLake.00010325	Resource use type do not support.	Resource use type do not support.	Please check the configuration in the configuration center: {xxx}.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010326	The json parse failure.	The json parse failure.	The json parse failure.
400	AIDataLake.00010327	{xxx} max capacity {xxx} exceeds the resource pool limit {xxx}.	{xxx} max capacity {xxx} exceeds the resource pool limit {xxx}.	Please enter the maximum {xxx} usage value, which must not exceed the resource pool specification limit.
400	AIDataLake.00010328	The target tenant Domain ID cannot be empty when cross tenant access is enabled.	The target tenant Domain ID cannot be empty when cross tenant access is enabled.	The domain ID of the target tenant cannot be empty.
400	AIDataLake.00010329	The target tenant Project ID cannot be empty when cross tenant access is enabled.	The target tenant Project ID cannot be empty when cross tenant access is enabled.	The project ID of the target tenant cannot be empty.
400	AIDataLake.00010330	Failed to obtain agency credentials.	Failed to obtain agency credentials.	Failed to obtain the agency credential. Check the agency configuration.
400	AIDataLake.00010331	Failed to query agreement rules.	Failed to query agreement rules.	Failed to query agreement rules. Check the agency configuration or network connection.
400	AIDataLake.00010332	Failed to query tenant agreements.	Failed to query tenant agreements.	=H276o query tenant agreements. Check the agency configuration or network connection.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010333	Failed to create tenant agreements.	Failed to create tenant agreements.	Failed to create tenant agreements. Check the agency configuration or network connection.
400	AIDataLake.00010334	Agent name is not correct.	Agent name is not correct.	Please select fabric agency name.
400	AIDataLake.00010335	Cce not install bursting plugin.	Cce not install bursting plugin.	Please install bursting plugin.
400	AIDataLake.00010336	Cannot delete compute instance because there are still associated endpoints not deleted.	Cannot delete compute instance because there are still associated endpoints not deleted.	There are still associated endpoints under the current compute instance that have not been deleted. Please delete all associated endpoints before deleting the compute instance.
400	AIDataLake.00010337	Cannot update compute instance because capacity has not changed.	Cannot update compute instance because capacity has not changed.	Compute instance capacity has not changed. Please modify the capacity and try again.
400	AIDataLake.00010344	The tag resource type is not supported.	The tag resource type is not supported.	Please confirm whether the resource type supports tag management.
400	AIDataLake.00010345	The tag resource does not exist.	The tag resource does not exist.	Please confirm the resource associated with the tag exists.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010354	RayCluster endpoint {xxx} (ID: {xxx}) is already in another federation endpoint and cannot be added again.	RayCluster endpoint {xxx} (ID: {xxx}) is already in another federation endpoint and cannot be added again.	RayCluster endpoint {xxx} (ID: {xxx}) is already in another federation endpoint and cannot be added again.
400	AIDataLake.00010355	RayCluster endpoint {xxx} does not exist.	RayCluster endpoint {xxx} does not exist.	RayCluster endpoint {xxx} does not exist. Please check the endpoint ID.
400	AIDataLake.00010356	Endpoint {xxx} (ID: {xxx}) is not of RayCluster type.	Endpoint {xxx} (ID: {xxx}) is not of RayCluster type.	Endpoint {xxx} (ID: {xxx}) is not of RayCluster endpoint type and cannot be added to a federation endpoint.
400	AIDataLake.00010357	RayCluster endpoint {xxx} (ID: {xxx}) is not running.	RayCluster endpoint {xxx} (ID: {xxx}) is not running.	RayCluster endpoint {xxx} (ID: {xxx}) is not running and cannot be added to a federation endpoint.
400	AIDataLake.00010358	RayCluster endpoint {xxx} (ID: {xxx}) is not in the same workspace as the federation endpoint.	RayCluster endpoint {xxx} (ID: {xxx}) is not in the same workspace as the federation endpoint.	RayCluster endpoint {xxx} (ID: {xxx}) is not in the same workspace as the federation endpoint.
400	AIDataLake.00010360	Duplicate RayCluster endpoint {xxx} in request.	Duplicate RayCluster endpoint {xxx} in request.	Remove duplicate RayCluster endpoint {xxx} from the request.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010361	Federation name {xxx} already exists.	Federation name {xxx} already exists.	Choose a different federation name; {xxx} is already in use.
400	AIDataLake.00010362	Number of RayCluster endpoints exceeds the limit.	Number of RayCluster endpoints exceeds the limit.	Reduce the number of RayCluster endpoints to 50 or fewer.
400	AIDataLake.00010364	Invalid federation parameter: {xxx}.	Invalid federation parameter: {xxx}.	Check the federation parameter {xxx} and provide a valid value.
400	AIDataLake.00010366	Federation {xxx} still has member RayCluster endpoints. Please unbind all member RayCluster endpoints before deleting the federation.	Federation {xxx} still has member RayCluster endpoints. Please unbind all member RayCluster endpoints before deleting the federation.	Unbind all member RayCluster endpoints from federation {xxx} before deleting it.
400	AIDataLake.00010368	Federation name {xxx} conflicts with an endpoint name in the same workspace.	Federation name {xxx} conflicts with an endpoint name in the same workspace.	Federation name {xxx} conflicts with an endpoint name in the same workspace. Please choose a different name.
400	AIDataLake.00010369	Partial endpoints are in a non-running status	Partial endpoints are in a non-running status	Check the status of member ray cluster endpoints and restore abnormal endpoints.
400	AIDataLake.00010370	All currently managed endpoints are in a non-running status.	All currently managed endpoints are in a non-running status.	Check and restore all member ray cluster endpoints to running status.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010371	No RayCluster endpoint in the federation endpoint	No RayCluster endpoint in the federation endpoint	Add ray cluster endpoints to the federation.
400	AIDataLake.00010375	RayCluster endpoint is a member of a federation endpoint.	RayCluster endpoint is a member of a federation endpoint.	Unbind ray cluster endpoint from federation with id {xxx} and name {xxx}.
400	AIDataLake.00010385	The number of federations created in the current workspace has reached the limit.	The number of federations created in the current workspace has reached the limit.	Delete idle federations and create them again, or contact O&M personnel to increase the maximum number of federations.
400	AIDataLake.00010401	Image snapshot not found, ID: {xxx}.	Image snapshot not found, ID: {xxx}.	Please check if the image snapshot ID is correct.
400	AIDataLake.00010402	The image {xxx} already has an available snapshot {xxx}, so there is no need to create it again.	The image {xxx} already has an available snapshot {xxx}, so there is no need to create it again.	The image {xxx} already has a snapshot {xxx}. No need to create again, you can use it directly.
400	AIDataLake.00010403	Cannot delete a snapshot that is being created, ID: {xxx}.	Cannot delete a snapshot that is being created, ID: {xxx}.	Please wait until the image snapshot creation is complete before deleting.
400	AIDataLake.00010404	CCI image snapshot quota exceeded: {xxx}.	CCI image snapshot quota exceeded: {xxx}.	Please delete unused image snapshots and try again, or contact O&M personnel to increase the quota.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010405	CCI image snapshot name conflict: {xxx}.	CCI image snapshot name conflict: {xxx}.	Please use a different image snapshot name and try again.
400	AIDataLake.00010406	No available namespace to create a CCI image snapshot.	No available namespace to create a CCI image snapshot.	Please create a computing resource pool first or contact the operations and maintenance personnel.
400	AIDataLake.00010407	Failed to delete CCI image snapshot, snapshot name: {xxx}.	Failed to delete CCI image snapshot, snapshot name: {xxx}.	Check snapshot name, or try again later.
400	AIDataLake.00010408	An unavailable image snapshot already exists, please delete it first: {xxx}.	An unavailable image snapshot already exists, please delete it first: {xxx}.	Please delete the unavailable image snapshot first before creating a new one.
400	AIDataLake.00010409	Image snapshot is being created, please check later. Image ID: {xxx}, Image version ID: {xxx}.	Image snapshot is being created, please check later. Image ID: {xxx}, Image version ID: {xxx}.	Please wait for the current image snapshot creation to complete and check later.
400	AIDataLake.00010410	Failed to save image snapshot, snapshot name: {xxx}.	Failed to save image snapshot, snapshot name: {xxx}.	Please try again later, or contact the operations team.
400	AIDataLake.00010411	Image version not found, image ID: {xxx}, version ID: {xxx}.	Image version not found, image ID: {xxx}, version ID: {xxx}.	Please check whether the image ID and version ID are correct or exist in SWR.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00010412	Image URL not configured, image ID: {xxx}, version ID: {xxx}.	Image URL not configured, image ID: {xxx}, version ID: {xxx}.	Please contact the administrator to configure the image URL for the image version.
400	AIDataLake.00010413	The image version has image snapshots created and cannot be deleted.	The image version has image snapshots created and cannot be deleted.	Please delete the image snapshots of the image version before deleting it.
400	AIDataLake.00010812	Invalid GPU configuration.	Invalid GPU configuration.	Please input an integer for GPU.
400	AIDataLake.00010813	Invalid NPU configuration.	Invalid NPU configuration.	Please input an integer for NPU.
400	AIDataLake.00010815	The dewKey config of dcs is incorrect.	The dewKey config of dcs is incorrect.	Please enter the correct dewKey config of dcs, the correct dewKey is {xxx}.
403	AIDataLake.00010035	No permissions for operating system labels.	No permissions for operating system labels.	Check your permissions.
403	AIDataLake.00010038	Unauthorized requests.	Unauthorized requests.	Check permissions {xxx} and retry after authorization.
403	AIDataLake.00010068	The application in the {xxx} state cannot be deleted. Duplicate deletion is not allowed.	The application in the {xxx} state cannot be deleted. Duplicate deletion is not allowed.	The current application is being deleted or has been deleted. Do not repeatedly delete it.
403	AIDataLake.00010073	no permission to buy {xxx}.	no permission to buy {xxx}.	Please purchase other product.

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Status Code	Error Codes	Error Message	Description	Solution
403	AIDataLake.00010075	The application can not be updated.	The application can not be updated.	Please update the application after the status is STOPPED.
403	AIDataLake.00010147	No permission to access resource.	No permission to access resource.	Please check your permissions to access the resource.
403	AIDataLake.00010167	Do not authorize agency permissions smn policy, cannot use the message notify function.	Do not authorize agency permissions smn policy, cannot use the message notify function.	Please Authorize the permission: {xxx} on the Service Authorization page.
403	AIDataLake.00010213	No OBT qualification.	No OBT qualification.	Please apply for OBT qualification..
403	AIDataLake.00010242	No permission to create delegation.	No permission to create delegation.	Operate agency failed.
403	AIDataLake.00010310	The compute resource specifications have reached the upper limit in the current space.	The compute resource specifications have reached the upper limit in the current space.	Delete unused compute resource specifications and create them again, or contact O&M personnel to increase the upper limit.
404	AIDataLake.00010003	Workspace not exist.	Workspace not exist.	Create a workspace first.
404	AIDataLake.00010004	Bucket entered not exist.	Bucket entered not exist.	Check the bucket.
404	AIDataLake.00010005	Protocol version entered not exist.	Protocol version entered not exist.	Check the protocol version.
404	AIDataLake.00010006	Empty protocol version.	Empty protocol version.	Check the protocol version.

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Status Code	Error Codes	Error Message	Description	Solution
404	AIDataLake.00010009	No resources found.	No resources found.	Enter correct resource and project IDs.
404	AIDataLake.00010012	Access domain name entered not exist.	Access domain name entered not exist.	Check the access domain name.
404	AIDataLake.00010013	Access client not exist.	Access client not exist.	Check the access client.
404	AIDataLake.00010024	The service agency is abnormal {xxx}.	The service agency is abnormal {xxx}.	Please approve the service authorization again on the service authorization page.
404	AIDataLake.00010045	Cluster {xxx} not exist.	Cluster {xxx} not exist.	Use a correct cluster ID.
404	AIDataLake.00010058	Failed to collect the account ID during overload control.	Failed to collect the account ID during overload control.	Check the account information.
404	AIDataLake.00010066	Task {xxx} not exist.	Task {xxx} not exist.	Check the job ID.
404	AIDataLake.00010069	Application not exist.	Application not exist.	Use a correct application ID.
404	AIDataLake.00010076	Appstore application not exist.	Appstore application not exist.	Please use correct application id.
404	AIDataLake.00010077	Appstore application version not exist.	Appstore application version not exist.	Please use correct version id.
404	AIDataLake.00010082	Log file does not exist.	Log file does not exist.	Please check whether files exist in the log storage path.

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Status Code	Error Codes	Error Message	Description	Solution
404	AIDataLake.00010083	The Job has not been run.	The Job has not been run.	Please ensure that your job has been run before you can view the log.
404	AIDataLake.00010086	{xxx}QPS spec does not exist.	{xxx}QPS spec does not exist.	Please check the qps spec.
404	AIDataLake.00010089	OBS object does not exist.	OBS object does not exist.	Please check the obs url.
404	AIDataLake.00010130	The {xxx} not exist.	The {xxx} not exist.	Please use the correct condition.
404	AIDataLake.00010134	User or agency not exist.	User or agency not exist.	Please check user or agency.
404	AIDataLake.00010148	Node pool not exist.	Node pool not exist.	Please check input.
404	AIDataLake.00010157	The OBS path to be authorized has been authorized.: {xxx}.	The OBS path to be authorized has been authorized.: {xxx}.	Please check input obs location.
404	AIDataLake.00010171	OBS path does not exist:{xxx}.	OBS path does not exist:{xxx}.	Please check the obs url.
404	AIDataLake.00010210	The endpoint {xxx} does not have the previous version.	The endpoint {xxx} does not have the previous version.	Please check the endpoint version.
404	AIDataLake.00010211	OBS bucket does not exist:{xxx}.	OBS bucket does not exist:{xxx}.	Please input the correct obs bucket name.
404	AIDataLake.00010212	Cache resource not exist, please check the input parameters.	Cache resource not exist, please check the input parameters.	Cache resource not exist, please check the input parameters.

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Status Code	Error Codes	Error Message	Description	Solution
404	AIDataLake.00010227	The vpcep service does not exist. id: {xxx}	The vpcep service does not exist. id: {xxx}	Please Enter a correct VPCEP service ID.
404	AIDataLake.00010233	Cap files not exists, need file suffix: {xxx}.	Cap files not exists, need file suffix: {xxx}.	Please check cap file.
404	AIDataLake.00010236	LTS Log Group for ray service does not exist.	LTS Log Group for ray service does not exist.	Please check if the log group corresponding to the LTS log group ID exists.
404	AIDataLake.00010237	LTS Log Stream for ray service does not exist.	LTS Log Stream for ray service does not exist.	Please check if the log stream corresponding to the LTS log group ID exists.
404	AIDataLake.00010239	No Ray resource exists in the current workspace.	No Ray resource exists in the current workspace.	Please create a ray resource first.
404	AIDataLake.00010243	The namespace of the instance does not exist.	The namespace of the instance does not exist.	The engine instance namespace does not exist.
404	AIDataLake.00010246	The configuration is in error in the configuration center: {xxx}. This will lead to {xxx}.	The configuration is in error in the configuration center: {xxx}. This will lead to {xxx}.	Please check the configuration in the configuration center: {xxx}.
404	AIDataLake.00010270	Incorrect IAM authentication information: x-auth-token not found.	Incorrect IAM authentication information: x-auth-token not found.	Please check whether the request carries IAM authentication information.

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Status Code	Error Codes	Error Message	Description	Solution
404	AIDataLake.00010285	The compute resource not exist.	The compute resource not exist.	Please select a valid compute resource.
404	AIDataLake.00010288	The image not exist, image ID: {xxx}.	The image not exist, image ID: {xxx}.	Please check whether the image is correct.
404	AIDataLake.00010289	Subnet does not exist.	Subnet does not exist.	Please select a valid subnet instance.
404	AIDataLake.00010292	Network connection does not exist.	Network connection does not exist.	Please select a valid network connection resource.
404	AIDataLake.00010293	Resource tenant's VPC is not created.	Resource tenant's VPC is not created.	Please create a resource pool first.
404	AIDataLake.00010294	Resource tenant's subnet is not created.	Resource tenant's subnet is not created.	Please create a resource pool first.
404	AIDataLake.00010296	VPC resource does not exist.	VPC resource does not exist.	Please select a valid VPC.
404	AIDataLake.00010300	metastoreId not exist.	metastoreId not exist.	Please select a valid LakeFormation instance.
404	AIDataLake.00010303	The storage resource not exist.	The storage resource not exist.	Please select a valid storage resource.
404	AIDataLake.00010363	Federation {xxx} not found.	Federation {xxx} not found.	Ensure the federation {xxx} exists and has not been deleted.
404	AIDataLake.00010810	DCS configuration does not exist.	DCS configuration does not exist.	Please check DCS config.

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Status Code	Error Codes	Error Message	Description	Solution
404	AIDataLake.00010811	DEW configuration does not exist.	DEW configuration does not exist.	Please check DEW config.
404	AIDataLake.00010814	SSL configuration of Dcs is not enabled.	SSL configuration of Dcs is not enabled.	Please check DCS config of SSL.
409	AIDataLake.00010008	Duplicate instance name.	Duplicate instance name.	Enter another instance name.
409	AIDataLake.00010014	Duplicate access client name.	Duplicate access client name.	Check the access client name.
409	AIDataLake.00010020	Subnet conflict. Access clients cannot be repeatedly created on the same subnet.	Subnet conflict. Access clients cannot be repeatedly created on the same subnet.	Select another VPC subnet to create an access client.
409	AIDataLake.00010026	Duplicate key in the tag list.	Duplicate key in the tag list.	Check the keys in the tag list.
409	AIDataLake.00010028	Duplicate member value in the tag list.	Duplicate member value in the tag list.	Check the member values in the tag list.
409	AIDataLake.00010041	VPC conflict. Access clients cannot be repeatedly created in the same VPC.	VPC conflict. Access clients cannot be repeatedly created in the same VPC.	Select another VPC to create an access client.
409	AIDataLake.00010050	Failed to change the instance specifications because the instance is not running.	Failed to change the instance specifications because the instance is not running.	Change the instance specifications after the instance is running.

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Status Code	Error Codes	Error Message	Description	Solution
409	AIDataLake.00010060	Access tenant authorized.	Access tenant authorized.	Do not repeatedly authorize the access tenant.
409	AIDataLake.00010062	Failed to perform this operation in the current task status.	Failed to perform this operation in the current task status.	Check the task status.
409	AIDataLake.00010063	{xxx} already exists.	{xxx} already exists.	Check the task name {xxx}.
409	AIDataLake.00010117	Only one qps parameter is required.	Only one qps parameter is required.	Please check the input parameters.
409	AIDataLake.00010122	The vpc network address is conflict with lakeformation 's network address.	The vpc network address is conflict with lakeformation 's network address.	Please check the vpc network.
409	AIDataLake.00010132	{xxx} already exists.	{xxx} already exists.	Please check input.
409	AIDataLake.00010144	The current tenant has workspaces and cannot cancel the authorization.	The current tenant has workspaces and cannot cancel the authorization.	Delete the tenant's all workspaces and cancel the authorization.
409	AIDataLake.00010153	Failed to perform this operation in the current endpoint status.	Failed to perform this operation in the current endpoint status.	Check the endpoint status.
409	AIDataLake.00010158	OBS service occur exception. OBS request ResponseCode : {xxx}, request ID: {xxx}.	OBS service occur exception. OBS request ResponseCode : {xxx}, request ID: {xxx}.	Please check the OBS service status and OBS location: {xxx}.

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Status Code	Error Codes	Error Message	Description	Solution
409	AIDataLake.00010162	Duplicate workspace name.	Duplicate workspace name.	Enter another workspace name.
409	AIDataLake.00010169	The same message notification policy exists in the parameters: {xxx}.	The same message notification policy exists in the parameters: {xxx}.	Please check input.
409	AIDataLake.00010177	Cap name {xxx} already exists in the workspace {xxx}.	Cap name {xxx} already exists in the workspace {xxx}.	Please use another CAP name, or contact O&M personnel to increase the upper limit.
409	AIDataLake.00010178	Cap version name {xxx} already exists in current Cap.	Cap version name {xxx} already exists in current Cap.	Please use another CAP version name, or contact O&M personnel to increase the upper limit.
409	AIDataLake.00010215	Failed to perform this operation in the current network connection status.	Failed to perform this operation in the current network connection status.	Check the network connection status.
409	AIDataLake.00010231	A connection {xxx} has been established between the current Workspace and VpcEP service {xxx}.	A connection {xxx} has been established between the current Workspace and VpcEP service {xxx}.	Do not repeatedly create network connection.
409	AIDataLake.00010267	There are multi OM updating config values.	There are multi OM updating config values.	Please refresh the config content.

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Status Code	Error Codes	Error Message	Description	Solution
409	AIDataLake.00010275	The current tenant has workspaces and cannot cancel the agreement.	The current tenant has workspaces and cannot cancel the agreement.	
409	AIDataLake.00010290	Network segment conflict exists.	Network segment conflict exists.	CIDR block conflict. Please modify the VPC CIDR block.
409	AIDataLake.00010297	Duplicate network connect name.	Duplicate network connect name.	Please enter another network connection name.
409	AIDataLake.00010304	Failed to perform this operation in the current storage status.	Failed to perform this operation in the current storage status.	Please check the storage resource status.
409	AIDataLake.00010323	Worker group name can not duplicate.	Worker group name can not duplicate.	Worker group name can not duplicate.
409	AIDataLake.00010359	RayCluster endpoint {xxx} (ID: {xxx}) has active jobs.	RayCluster endpoint {xxx} (ID: {xxx}) has active jobs.	RayCluster endpoint {xxx} (ID: {xxx}) has active jobs and cannot be removed from the federation endpoint.
500	AIDataLake.00010067	Failed to initialize the task because the number of tasks may have reached the upper limit.	Failed to initialize the task because the number of tasks may have reached the upper limit.	Try again later.
400	AIDataLake.00090001	OLC decryption failed.	OLC decryption failed.	Check the overload control decryptor.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00090002	Failed to collect the account ID during overload control.	Failed to collect the account ID during overload control.	Check the account information.
400	AIDataLake.00090003	Resources are insufficient when a resource group is applied for.	Resources are insufficient when a resource group is applied for.	Check the account information.
400	AIDataLake.00090004	Failed to find workspace.	Failed to find workspace.	Please use correct workspace.
400	AIDataLake.00090005	Failed to find endpoint.	Failed to find endpoint.	Please use correct endpoint.
400	AIDataLake.00090006	The corresponding resource in the workspace cannot be found.	The corresponding resource in the workspace cannot be found.	Ensure that the corresponding resource has been purchased in the workspace.
400	AIDataLake.00090007	Unsupported Cap version storage type.	Unsupported Cap version storage type.	Check the cap version source type.
400	AIDataLake.00090008	Create endpoint failed. error message: {xxx}	Create endpoint failed. error message: {xxx}	Please Try again based on the failure cause.
400	AIDataLake.00090009	The {xxx} not exist.	The {xxx} not exist.	Please try to use correct info.
400	AIDataLake.00090010	Malformed image address: {xxx}.	Malformed image address: {xxx}.	Please check the image address.
400	AIDataLake.00090011	Ray endpoint config has error: {xxx}.	Ray endpoint config has error: {xxx}.	Please check endpoint config.
400	AIDataLake.00090012	No permission to use: {xxx}.	No permission to use: {xxx}.	Please get permission first.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00090013	Ray job run failed: {xxx}.	Ray job run failed: {xxx}.	Please check job run config.
400	AIDataLake.00090014	Active job can not delete: {xxx}.	Active job can not delete: {xxx}.	Please wait the job to complete or stop job run first if the job is running .
400	AIDataLake.00090015	Public instance can not delete: {xxx}.	Public instance can not delete: {xxx}.	Please check the usage of public instance.
400	AIDataLake.00090016	Cancel service instance failed: {xxx}.	Cancel service instance failed: {xxx}.	Please check whether the instance can be canceled.
400	AIDataLake.00090017	Cancel job failed: {xxx}.	Cancel job failed: {xxx}.	Please check status of the task.
400	AIDataLake.00090018	Update job failed: {xxx}.	Update job failed: {xxx}.	Please check whether the job can be updated.
400	AIDataLake.00090019	Create service instance failed: {xxx}.	Create service instance failed: {xxx}.	Please check the input parameter of create service instance.
400	AIDataLake.00090020	Delete service instance failed: {xxx}.	Delete service instance failed: {xxx}.	Please check the input parameter of service instance.
400	AIDataLake.00090021	Update service instance failed: {xxx}.	Update service instance failed: {xxx}.	Please check the input parameter of update service instance.
400	AIDataLake.00090022	Parameter {xxx} value is invalid.	Parameter {xxx} value is invalid.	Please input valid parameter value: {xxx}.
400	AIDataLake.00090023	Inference failed: {xxx}.	Inference failed: {xxx}.	Please input valid inference request: {xxx}.
400	AIDataLake.00090024	Operation is not allowed for request endpoint.	Operation is not allowed for request endpoint.	Please confirm the endpoint is use on demand resource endpoint.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00090025	Base model type {xxx} does not match matche the endpoint's resource.	Base model type {xxx} does not match matche the endpoint's resource.	Please check if the app's base model type matches the endpoint's resources.
400	AIDataLake.00090026	Maintain job required properties missed.	Maintain job required properties missed.	Maintain job required properties missed.
400	AIDataLake.00090027	Maintain job is only allowed to run on SQL public endpoint.	Maintain job is only allowed to run on SQL public endpoint.	Maintain job is only allowed to run on SQL public endpoint.
400	AIDataLake.00090028	Maintain job property not support.	Maintain job property not support.	Maintain job property not support.
400	AIDataLake.00090030	Unauthorized requests.	Unauthorized requests.	Check permissions {xxx} and retry after authorization.
400	AIDataLake.00090046	Job run error {xxx}.	Job run error {xxx}.	Please check job config {xxx}.
400	AIDataLake.00090047	Obs download error {xxx}.	Obs download error {xxx}.	Please check Obs download config {xxx}.
400	AIDataLake.00090048	Plugin type not exist error {xxx}.	Plugin type not exist error {xxx}.	Please input valid Plugin type {xxx}.
400	AIDataLake.00090049	Pip install error {xxx}.	Pip install error {xxx}.	Please check Pip install config {xxx}.
400	AIDataLake.00090050	Obs invalid path error {xxx}.	Obs invalid path error {xxx}.	Please input valid Obs path {xxx}.
400	AIDataLake.00090051	Driver run error {xxx}.	Driver run error {xxx}.	Please check Driver run config {xxx}.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00090052	App type not exist error {xxx}.	App type not exist error {xxx}.	Please input valid App type {xxx}.
400	AIDataLake.00090053	Command I/O error {xxx}.	Command I/O error {xxx}.	Please check Command config {xxx}.
400	AIDataLake.00090054	AdminWorkspace not found.	AdminWorkspace not found.	Contact O&M personnel.
400	AIDataLake.00090055	AdminEndpoint not found, type is {xxx}.	AdminEndpoint not found, type is {xxx}.	Contact O&M personnel.
400	AIDataLake.00090056	Un support message notification type: {xxx}.	Un support message notification type: {xxx}.	Please check message type definitions.
400	AIDataLake.00090057	Pending job scheduled failed: {xxx}.	Pending job scheduled failed: {xxx}.	Please check job config, or contact O&M personnel.
400	AIDataLake.00090058	Request resource exceed limit.	Request resource exceed limit.	Please check max resource limit config.
400	AIDataLake.00090059	Token is null.	Token is null.	Please access with Token.
400	AIDataLake.00090060	App instance replica already exists on the specified engine instance.	App instance replica already exists on the specified engine instance.	Check whether the entered app instance replia ID is duplicate or incorrect.
400	AIDataLake.00090061	This method is not implemented.	This method is not implemented.	Do not use this method
400	AIDataLake.00090062	Endpoint being maintained.	Endpoint being maintained.	Try again later or create an app instance on another endpoint.
400	AIDataLake.00090063	Endpoint is frozen.	Endpoint is frozen.	Try restore endpoint status or contact O&M personnel.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00090064	Endpoint is inactive.	Endpoint is inactive.	Subscribe the public endpoint before use.
400	AIDataLake.00090065	Failed to connect to the risk control system.	Failed to connect to the risk control system.	Please try again or contact O&M personnel.
400	AIDataLake.00090066	Check query input failed.	Check query input failed.	Please try again or contact O&M personnel.
400	AIDataLake.00090067	Inference features are not enabled.	Inference features are not enabled.	Contact O&M personnel to enable inference features.
400	AIDataLake.00090068	Inference system error {xxx}.	Inference system error {xxx}.	Please try again or contact O&M personnel.
400	AIDataLake.00090069	Failed to perform this operation in the current status.	Failed to perform this operation in the current status.	Please check status and try again later.
400	AIDataLake.00090070	Endpoint is trial ended.	Endpoint is trial ended.	Please create private endpoint to use.
400	AIDataLake.00090071	Name cannot be duplicated.	Name cannot be duplicated.	Please check the input to ensure that the name is not duplicated with others.
400	AIDataLake.00090072	Endpoint is diverting.	Endpoint is diverting.	Try again later.
400	AIDataLake.00090073	Can not set visibility as public because endpoint is not public.	Can not set visibility as public because endpoint is not public.	Please set endpoint visibility as first and then try again.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00090074	Reasoning failed: {xxx}.	Reasoning failed: {xxx}.	Please check whether the inference parameters are correct or try again..
400	AIDataLake.00090075	Create appInstance replica failed, error msg: {xxx}	Create appInstance replica failed, error msg: {xxx}	Try again later.
400	AIDataLake.00090076	An error occurred during table aging.	An error occurred during table aging.	Please check the data aging configuration.
400	AIDataLake.00090077	Failed to execute the workflow.	Failed to execute the workflow.	Locate the cause based on the workflow task ID or service logs.
400	AIDataLake.00090078	The user is forbidden to use the inference service.	The user is forbidden to use the inference service.	Please Contact O&M personnel.
400	AIDataLake.00090079	The public model can't close content moderation switch.	The public model can't close content moderation switch.	Please Check Input.
400	AIDataLake.00090080	Application key not exist in endpoint {xxx}.	Application key not exist in endpoint {xxx}.	Please check Application key.
400	AIDataLake.00090081	Application response failed {xxx}.	Application response failed {xxx}.	Please check params or Application.
400	AIDataLake.00090082	Ray service access failed {xxx}.	Ray service access failed {xxx}.	Please check Ray service component or setting.
400	AIDataLake.00090083	You do not have the permission.	You do not have the permission.	Please Contact O&M personnel.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00090084	Failed to run the sql business.	Failed to run the sql business.	Please check sql config, or contact O&M personnel.
400	AIDataLake.00090085	Job features are not enabled.	Job features are not enabled.	Contact O&M personnel to enable job features.
400	AIDataLake.00090086	Ray features are not enabled.	Ray features are not enabled.	Contact O&M personnel to enable ray features.
400	AIDataLake.00090087	Too many requests.	Too many requests.	Please try again later.
400	AIDataLake.00090091	The lakeFormation catalog is not exist.	The lakeFormation catalog is not exist.	Please try again or contact O&M personnel.
400	AIDataLake.00090092	The sql session {xxx} is not Running.	The sql session {xxx} is not Running.	Please try again or contact O&M personnel.
400	AIDataLake.00090093	The transaction id cannot be duplicated.	The transaction id cannot be duplicated.	Please try again or contact O&M personnel.
400	AIDataLake.00090094	Fabric Appcode Unauthorized.	Fabric Appcode Unauthorized.	Please try again or contact O&M personnel.
400	AIDataLake.00090095	Domain id is invalid.	Domain id is invalid.	Please check whether the model architecture feature is enabled in the configuration center (features.xds.support.model.arch.enable).

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00090096	May contain sensitive information, please try again.	May contain sensitive information, please try again.	Please check whether the configuration center contains the corresponding model architecture.
400	AIDataLake.00090097	Inference system xds instance not found: {xxx}.	Inference system xds instance not found: {xxx}.	Please check whether the model architecture of the input archName is the same in the configuration center and XDS.
400	AIDataLake.00090101	The session is expired.	The session is expired.	Please use a new session.
400	AIDataLake.00090102	The sql parameter is invalid.	The sql parameter is invalid.	Please Check Input.
400	AIDataLake.00090103	The sql statement is invalid.	The sql statement is invalid.	Please Check Input.
400	AIDataLake.00090104	Exceeded session quota.	Exceeded session quota.	Please close existing sessions or expand quotas.
400	AIDataLake.00090105	The model architecture feature is not enabled in the configuration center.	The model architecture feature is not enabled in the configuration center.	Try again later.
400	AIDataLake.00090106	The configuration center does not contain the specified model architecture.	The configuration center does not contain the specified model architecture.	Please check input.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00090107	The model architecture already exists in XDS, and it differs from the one in the configuration center.	The model architecture already exists in XDS, and it differs from the one in the configuration center.	Please check input.
400	AIDataLake.00090108	Deploying a model-arch-enabled app instance, but a model-arch-disabled app instance with the same name (case-insensitive) already exists in the database.	Deploying a model-arch-enabled app instance, but a model-arch-disabled app instance with the same name (case-insensitive) already exists in the database.	Please check session id or try again after creating a new session.
400	AIDataLake.00090109	Deploying a model-arch-disabled app instance, but a model-arch-enabled app instance with the same name (case-insensitive) already exists in the database.	Deploying a model-arch-disabled app instance, but a model-arch-enabled app instance with the same name (case-insensitive) already exists in the database.	Please check the input to ensure that the transaction id is not duplicated.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00091043	Deploying a model-arch-disabled app instance, but a model-arch-disabled app instance with a name that is equal case-insensitively but different case-sensitively already exists in the database.	Deploying a model-arch-disabled app instance, but a model-arch-disabled app instance with a name that is equal case-insensitively but different case-sensitively already exists in the database.	Try again later.
400	AIDataLake.00091044	Fabric too many requests.	Fabric too many requests.	Please Try again based on the failure cause.
400	AIDataLake.00091045	Get proxy config map failed.	Get proxy config map failed.	Try again later.
400	AIDataLake.00092004	Failed to cancel task, flow id is {xxx}.	Failed to cancel task, flow id is {xxx}.	Try again later.
400	AIDataLake.00092005	FabricSQL CreateSession Failed.	FabricSQL CreateSession Failed.	Try again later.
400	AIDataLake.00092006	FabricSQL CloseSession Failed.	FabricSQL CloseSession Failed.	Try again later.
400	AIDataLake.00092007	FabricSQL ExecuteSql Failed.	FabricSQL ExecuteSql Failed.	Try again later.
400	AIDataLake.00092008	FabricSQL CancelExecuteSql Failed.	FabricSQL CancelExecuteSql Failed.	Try again later.
400	AIDataLake.00092009	FabricSQL ExecuteSql Failed.	FabricSQL ExecuteSql Failed.	Try again later.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00092013	FabricSQL GetSessionStatus Failed.	FabricSQL GetSessionStatus Failed.	Try again later.
400	AIDataLake.00092014	Running please wait.	Running please wait.	Try again later.
400	AIDataLake.00092015	appinstance aging error.	appinstance aging error.	Contact O&M personnel.
400	AIDataLake.00092016	Fabric L2cache exception.	Fabric L2cache exception.	Please contact the operations team.
400	AIDataLake.00092017	Failed to get distribute lock {xxx}.	Failed to get distribute lock {xxx}.	Please contact the operations team.
400	AIDataLake.00092018	Failed to call XDS API to delete model architecture with 5xx error. App instance ID: {xxx}, archName: {xxx}.	Failed to call XDS API to delete model architecture with 5xx error. App instance ID: {xxx}, archName: {xxx}.	Please contact the operations team.
400	AIDataLake.00092020	Failed to create the pod, the possible cause is that the pod name is duplicate or other parameters are invalid.	Failed to create the pod, the possible cause is that the pod name is duplicate or other parameters are invalid.	Please check whether the pod name is duplicate and whether other parameters are set correctly, and then try again.
400	AIDataLake.00092021	The job resource configuration is incorrect. {xxx}	The job resource configuration is incorrect. {xxx}	Check whether the job resource configuration matches the endpoint resource type.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00092022	Failed to create the pod, the possible cause is that the pod name is duplicate or other parameters are invalid.	Failed to create the pod, the possible cause is that the pod name is duplicate or other parameters are invalid.	Please contact the operations team.
400	AIDataLake.00092023	The job resource configuration is incorrect.	The job resource configuration is incorrect.	Please contact the operations team.
400	AIDataLake.00092024	The job resource parameter format is incorrect.	The job resource parameter format is incorrect.	Check whether the job resource parameter format is correct. The CPU type can be a number not less than 0.001 or a number not less than 1 followed by m. The GPU and NPU types must be numbers not less than 0.
400	AIDataLake.00092025	Failed to execute the SQL statement.	Failed to execute the SQL statement.	Please try again later.
400	AIDataLake.00092026	Failed to initialize the certificate list.	Failed to initialize the certificate list.	Please contact the operations team.
400	AIDataLake.00092027	Idempotent token is required but not provided.	Idempotent token is required but not provided.	Please provide x-client-token in your request header.
400	AIDataLake.00092028	Idempotent request in progress.	Idempotent request in progress.	Idempotent request in progress. Please try later.

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Status Code	Error Codes	Error Message	Description	Solution
400	AIDataLake.00092029	The input resources must not exceed the maximum value of the endpoint.	The input resources must not exceed the maximum value of the endpoint.	Please check whether the size of the job resource parameters is correct. It must not exceed the endpoint size.
400	AIDataLake.00092030	Cancel ray job {xxx} failed.	Cancel ray job {xxx} failed.	Please check ray job, {xxx}.
400	AIDataLake.00092031	Invalid parameter: {xxx}.	Invalid parameter: {xxx}.	Please enter parameters in the correct format.

19.3 Obtaining a Project ID

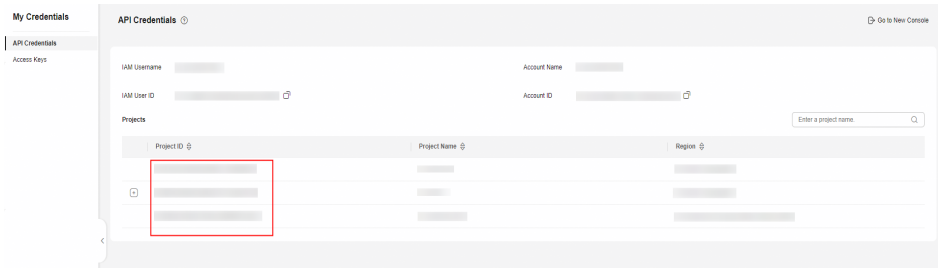
Obtaining a Project ID from the Management Console

A project ID (**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 **AI DataLake console**.
2. Hover over the username in the upper right corner and choose **My Credentials** from the drop-down list.
3. On the **API Credentials** page, view project IDs in the project list.

If there are multiple projects in one region, expand **Region** and view subproject IDs in the **Project ID** column.

Figure 19-1 Viewing project IDs



Obtaining a Project ID by Calling an API

You can obtain the project ID by calling the API used for **querying project information**.

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The API for obtaining a project ID is **GET https://{Endpoint}/v3/projects/**. **{Endpoint}** indicates the endpoint of IAM. For details, see **Endpoints**. For details about API authentication, see **Authentication**.

The following is an example response. The value of **id** under **projects** is the project ID of the region specified by **name**.

```
{
    "projects": [
        {
            "domain_id": "65382450e8f64ac0870cd180d14e684b",
            "is_domain": false,
            "parent_id": "65382450e8f64ac0870cd180d14e684b",
            "name": "region_id",
            "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"
    }
}
```

19.4 Obtaining a Workspace ID

Obtaining a Workspace ID from the Console

When calling APIs, some URLs require a workspace ID (**workspace_id**). The steps to obtain a workspace ID are as follows:

1. Log in to the **AI DataLake console**.
2. In the navigation pane, click the workspace area. Select **Workspace Management** from the drop-down list.

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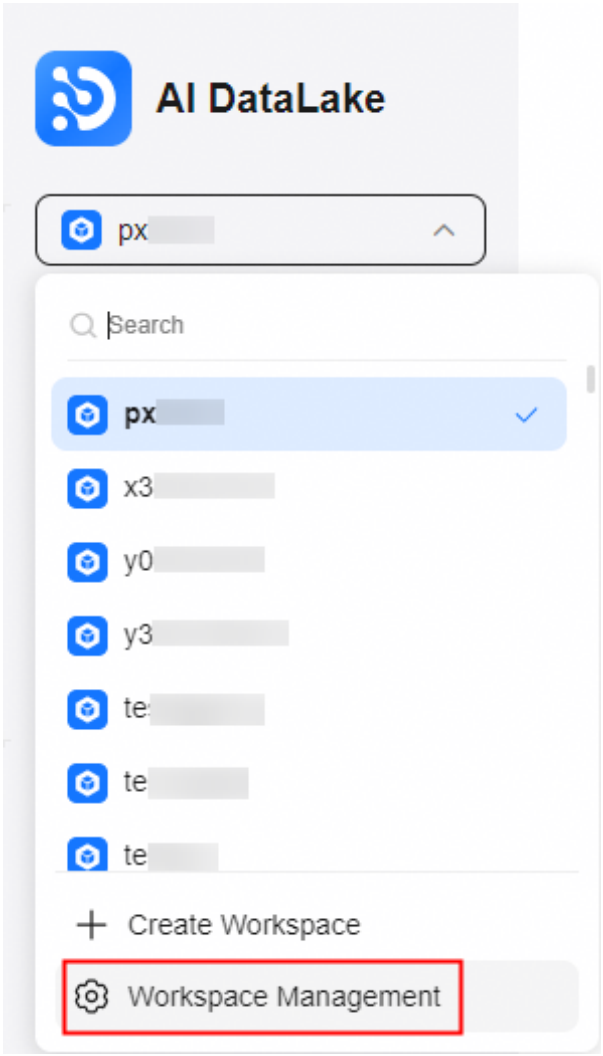
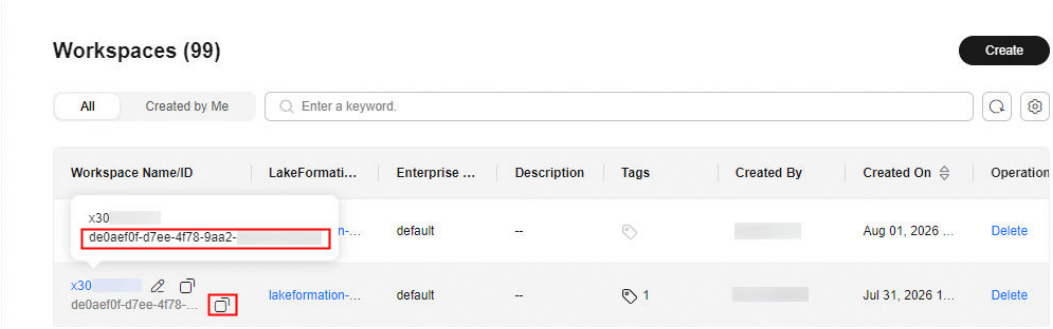
Figure 19-2 Workspace Management



3. On the **Workspaces** page, locate the workspace ID in the **Workspace Name/ID** column.

Figure 19-3 Viewing the workspace ID



Obtaining a Workspace ID by Calling an API

The workspace ID can be obtained by calling the **Listing Workspaces** API.

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The API for obtaining the workspace ID is **GET https://*{Endpoint}*/v2/workspaces**, where *{Endpoint}* is the IAM endpoint. For details, see **Endpoints**. For API authentication, see **Authentication**.

The response example is as follows, where **id** is the workspace ID corresponding to **name**.


```
{
  "total" : 3,
  "workspaces" : [ {
    "id" : "6ccab7b6-fe3a-xxxx-xxxx-be37323bd254",
    "name" : "AIDataLake-Test-Workspace",
    "description" : "AI DataLake test workspace",
    "create_time" : "2026-06-23T12:51:21.000+00:00",
    "create_domain_name" : "test_domain",
    "create_user_name" : "test_user",
    "metastore_id" : "0ba8919e-f52c-xxxx-xxxx-9ad7ecdb5ed9",
    "enterprise_project_id" : "0",
    "tags" : [ {
      "key" : "environment",
      "value" : "test"
    }, {
      "key" : "creator",
      "value" : "postman-script"
    }, {
      "key" : "purpose",
      "value" : "automation-testing"
    } ]
  }, {
    "id" : "61ff9cae-2e9e-xxxx-xxxx-fc4e199c83be",
    "name" : "AIDataLake-pool",
    "description" : "",
    "create_time" : "2026-06-22T08:27:32.000+00:00",
    "create_domain_name" : "test_domain",
    "create_user_name" : "test_user",
    "metastore_id" : "99543e6a-1df6-xxxx-xxxx-1a2f185f0968",
    "enterprise_project_id" : "0",
    "tags" : [ ]
  }, {
    "id" : "e89e105f-3aab-xxxx-xxxx-da1d2512a7a8",
    "name" : "AutoTest",
    "description" : "Billing automation test",
    "create_time" : "2026-05-14T08:53:45.000+00:00",
    "create_domain_name" : "test_domain",
    "create_user_name" : "test_user",
    "metastore_id" : "99543e6a-1df6-xxxx-xxxx-1a2f185f0968",
    "enterprise_project_id" : "0",
    "tags" : [ ]
  } ]
}
```


19.5 Obtaining an Account ID

An account ID (domain ID) is required for some URLs when an API is called. To obtain an account ID, perform the following operations:

1. Log in to the **AI DataLake console**.
2. Hover over the username in the upper right corner and choose **My Credentials** from the drop-down list.
3. On the displayed **API Credentials** page, view **Account ID**.

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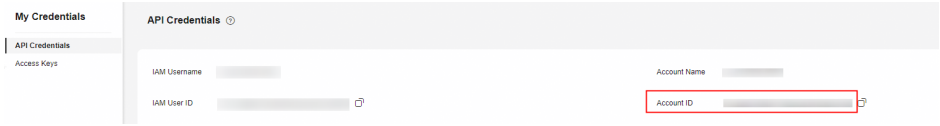
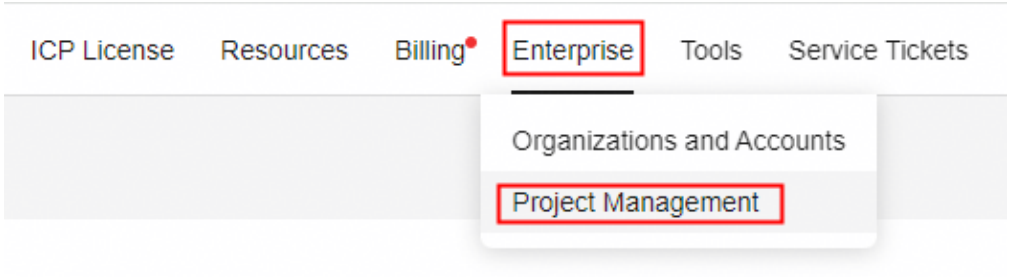
Figure 19-4 Obtaining an account ID



19.6 Obtaining an Enterprise Project ID

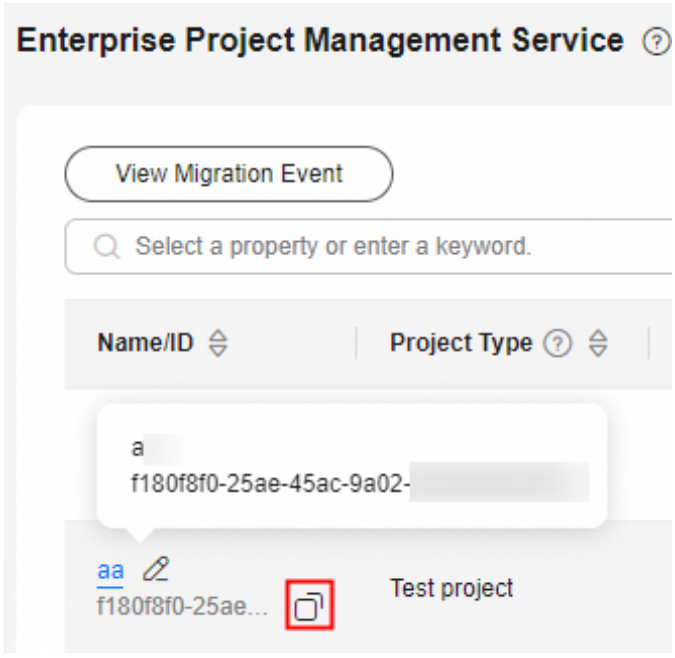
1. Log in to the **AI DataLake console**.
2. On the top navigation bar, choose **Enterprise** > **Project Management**.

Figure 19-5 Project Management



3. On the **Enterprise Project Management Service** page, click the copy button in the **Name/ID** column to copy the enterprise project ID.

Figure 19-6 Obtaining the enterprise project ID



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19.7 Guide to Using SQL Statement Placeholders in Spark Jobs

What Is a Placeholder?

A placeholder is a parameter marker used in SQL statements, represented in the format **:parameter_name** to replace specific values or text. It is equivalent to first writing the complete SQL logic framework, marking the data positions to be filled with placeholders. When executed, the system automatically and securely fills user input data into these positions. This method completely separates the SQL logic framework from the data, avoiding SQL injection risks and syntax errors caused by directly concatenating user input. It ensures security while improving code maintainability.

NOTE

Placeholders can only replace values and cannot be used to replace SQL structures such as table names, column names, or keywords.

Why Use Placeholders?

- Type safety.

  After declaring **value_type**, the system automatically converts the input value to the correct type, avoiding implicit conversion errors.

  For example, if **123** is passed but declared as a DATE type, the system processes it according to date rules rather than directly concatenating it as the string **123**.

- SQL injection prevention.

  Placeholders can only replace values and cannot be used to replace SQL structures such as column names or table names. Parameters and SQL logic are completely separated, fundamentally defending against SQL injection attacks.

- Execution plan reuse.

  The SparkSQL engine can cache logical plans that do not contain specific parameters. When the same SQL is executed with different parameter values, the cached execution plan can be reused directly, improving compilation speed.

Use Cases

- Using placeholders in Spark SQL jobs: When executing a single SQL statement by calling an API, placeholders can be used in the SQL, and the placeholder values and types can be specified in the request parameters.
- Using placeholders in Spark jobs: When submitting a job of type **spark_sql_scripting_job** by calling an API, placeholders can be used in the SQL script file.

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Parameter Types Supported by SQL Statement Placeholders

Table 19-2 Parameter types supported by SQL statement placeholders

Type	Description	Input Value Format	Example Input Value
STRING	String type (default type)	Pass a string directly.	hello
INTEGER	Integer type	Pass a numeric string directly.	100
DECIMAL	Fixed-point number type	Pass a decimal string directly.	12.1
DATE	Date type	Only supports long values (millisecond timestamp).	-1500000000000
TIMESTAMP	Timestamp type	Only supports long values (millisecond timestamp).	-1779866327983

Using SQL Statement Placeholders in Spark SQL Jobs

Step 1 Mark placeholders in the SQL statement using **:parameter-name**.

```
INSERT INTO test_users_0527 VALUES (3, 'liu', 20, :param2, :param3)
```

Here, **:param2** and **:param3** are placeholders and can be customized.

Step 2 Specify the value and type of each placeholder in the **parameters** array of the request body.

```
{
   "endpoint_name": "spark-sql-cwk",
   "catalog_context": {
      "catalog_name": "lzh",
      "database_name": "test"
   },
   "statement": "INSERT INTO test_users_0527 VALUES (3, 'liu', 20, :param2, :param3)",
   "parameters": [
      {
         "key": "param2",
         "value": "string1",
         "value_type": "STRING"
      },
      {
         "key": "param3",
         "value": "123",
         "value_type": "DATE"
      }
   ],
   "spark_config": {
      "spark.driver.cores": "2"
   },
   "timeout": {
      "launching_timeout": 10800
```

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```
  },
  "labels": [
    {
      "key": "sql",
      "value": "test"
    }
  ]
}
```

Table 19-3 Request body placeholder fields

Field	Mandatory	Description
key	Yes	Placeholder name, must match **:parameter_name** in the SQL.
value	Yes	Actual value to replace.
value_type	No	Value type. It defaults to **STRING** if unspecified.

NOTE

The order of parameters in the **parameters** array in the request body is not important. The system matches parameters by the **key** name.

----End

Using SQL Statement Placeholders in Spark Jobs

Step 1 Write a SQL script file (must be wrapped with **BEGIN** and **END**).

For example, create a file named **sql_scripting_insert_ljh.sql**.

```
BEGIN
SELECT * FROM (VALUES (3, :param1, 20, :param2, :param3, :param4)) AS
  t(id, name, age, date_birth, time_birth, decimal_test);
END
```

Step 2 Specify the placeholder values in **sql_scripting_parameters** in the job configuration.

```
{
   "endpoint_name": "spark-job-vu9e",
   "name": "test-job-dsds",
   "spark_version": "4.0.0",
   "job_config": {
      "type": "spark_sql_scripting_job",
      "sql_scripting_file": "obs://obs-jiaxg/zhaoyu/spark_sql_scripting/sql/sql_scripting_insert_ljh.sql",
      "sql_scripting_result_to_obs": true,
      "sql_scripting_parameters": [
         {
            "key": "param1",
            "value": "liu"
         },
         {
            "key": "param2",
            "value": "-1500000000000",
            "value_type": "DATE"
         },
         {
            "key": "param3",
```

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```
            "value": "-1779866327983",
            "value_type": "TIMESTAMP"
        },
        {
            "key": "param4",
            "value": "12.1",
            "value_type": "DECIMAL"
        }
    ]
  }
}
```

Table 19-4 Some fields in the request body

Field	Mandatory	Description
sql_scripting_file	Yes	Path of the SQL script file on OBS.
sql_scripting_result_to_obs	No	Whether to write the result to OBS.
sql_scripting_parameters	No	List of placeholder parameters.

NOTE

- The value of **key** in **sql_scripting_parameters** in the request body must match **:parameter_name** in the SQL.
- The order of parameters in **sql_scripting_parameters** in the request body is not important. The system matches parameters by the **key** name.

----End

Reference Templates

- Spark SQL job request body template

```
{
   "endpoint_name": "<endpoint-name>",
   "catalog_context": {
      "catalog_name": "<catalog-name>",
      "database_name": "<database-name>"
   },
   "statement": "<SQL-statement-containing-placeholders>",
   "parameters": [
      {
         "key": "<placeholder-name>",
         "value": "<replacement-value>",
         "value_type": "STRING|INTEGER|DECIMAL|DATE|TIMESTAMP"
      }
   ]
}
```

- Spark job request body template.

```
{
   "endpoint_name": "<endpoint-name>",
   "name": "<job-name>",
   "spark_version": "4.0.0",
   "job_config": {
      "type": "spark_sql_scripting_job",
      "sql_scripting_file": "<path-of-the-SQL-script-file-on-OBS>",
      "sql_scripting_result_to_obs": true,
      "sql_scripting_parameters": [
         {
```

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```
            "key": "<placeholder-name>",
            "value": "<replacement-value>",
            "value_type": "STRING|INTEGER|DECIMAL|DATE|TIMESTAMP"
        }
    ]
  }
}
```

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