Log Tank Service

API Reference

Issue 01

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1 Before You Start

Welcome to *Log Tank Service API Reference*. LTS collects log data from hosts and cloud services. By processing massive amounts of logs efficiently, securely, and in real time, LTS provides useful insights for you to optimize the availability and performance of cloud services and applications. It also helps you efficiently perform real-time decision-making, device O&M, and service trend analysis.

This document describes how to use application programming interfaces (APIs) to perform operations on LTS, such as creating and deleting a log group, ingesting logs to LTS, and transferring logs. For details about all supported operations, see **API Overview**.

Before calling LTS APIs, ensure that you are familiar with LTS concepts. For details, see **Service Overview**.

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

Endpoints

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

Concepts

- Account

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

- User

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

  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 into universal regions and dedicated regions. A universal region provides universal cloud services for common tenants. A dedicated region provides specific services for specific tenants.

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

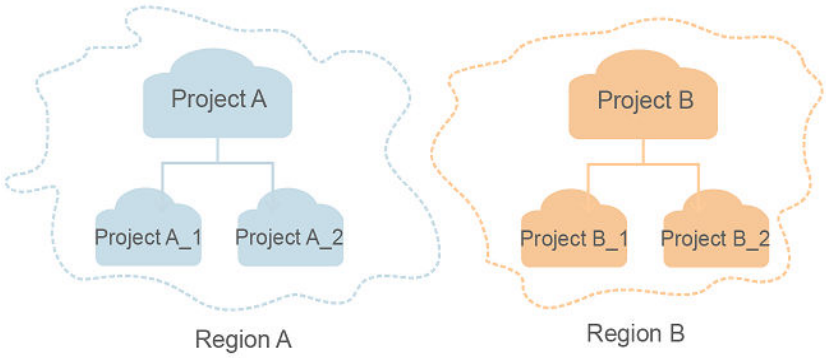
- AZ

  An 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 interconnected using high-speed optical fibers to allow you to build cross-AZ high-availability systems.

- Project

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

  Figure 1-1 Project isolating model

- Enterprise project

  Enterprise projects group and manage resources across regions. Resources in enterprise projects are logically isolated from each other and can be directly transferred between the projects.

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

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2 API Overview

LTS extension APIs allow you to use the basic LTS functions. For example, you can query API versions, create, query, and delete log groups or log streams.

Table 1 describes the LTS APIs.

Table 2-1 API description

Category	Description
Host group management	APIs for creating, querying, and deleting host groups
Log group management	APIs for creating, querying, and deleting log groups
Log stream management	APIs for creating, querying, and deleting log streams
Log management	APIs for querying logs
Log ingestion	APIs for reporting logs
Log transfer	APIs for transferring logs of one or more specified log streams to other services
Log collection beyond free quota	APIs for enabling or disabling log collection beyond free quota
Cloud structuring	APIs for structuring logs, and querying, modifying, and deleting structuring rules
Container log ingestion from AOM to LTS	APIs for creating, querying, modifying, and deleting rules for ingesting container logs from AOM to LTS
SMN topics	APIs for querying SMN topics

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Category	Description
Message template management	APIs for creating, modifying, deleting, and querying message templates
SQL alarms	APIs for creating, querying, modifying, and deleting SQL alarms
Keyword alarms	APIs for creating, querying, modifying, and deleting keyword alarms
Alarm list	APIs for querying and deleting alarms
Tag management	APIs for adding tags to log groups, log streams, and host groups
Dashboard management	API for creating dashboards
Log charts	APIs for querying log charts
Quick search	APIs for creating, querying, and deleting quick search requests

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3 Calling APIs

3.1 Making an API Request

This section describes the structure of a REST API request, and uses the IAM API for **creating an IAM user** as an example to demonstrate how to call an API.

Request URI

A request URI is in the following format:

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

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

- **URI-scheme**: protocol used to transmit requests. All APIs use HTTPS.
- **Endpoint**: domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from **Regions and Endpoints**.

  For example, the endpoint of IAM in the CN-Hong Kong region is **iam.ap-southeast-1.myhuaweicloud.com**.
- **resource-path**: API access path. Obtain the path from the URI of an API. For example, the **resource-path** of the API for creating an IAM user is **/v3.0/OS-USER/users**.
- **query-string**: query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of *Parameter name=Parameter value*. For example, **?limit=10** indicates that a maximum of 10 data records will be displayed.

For example, to create an IAM user, obtain the endpoint of any region (for example, the endpoint of CN-Hong Kong: iam.ap-southeast-1.myhuaweicloud.com) and **resource-path** (**/v3.0/OS-USER/users**) in the URI of the API for **creating an IAM user as an administrator**. Then, construct the URI as follows:

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

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Figure 3-1 Example URI

NOTE

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

Request Methods

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

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

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

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

Request Header

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

Table 3-1 describes common request headers.

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Table 3-1 Common request headers

Parameter	Description	Mandatory	Example Value
Host	Server domain name and port number of the resources being requested. The value can be obtained from the URL of the service API. The value is in the format of *Hostname*:*Port number*. If the port number is not specified, the default port is used. The default port number for **https** is **443**.	No This field is mandatory for AK/SK authentication.	code.test.com or code.test.com:443
Content-Type	Type (or format) of the message body. The default value **application/json** is recommended. Other values of this field will be provided for specific APIs if any.	Yes	application/json
Content-Length	Length of the request body. The unit is byte.	No	3495
X-Project-Id	Project ID. Obtain the project ID by following the instructions in **Obtaining a Project ID**.	No This field is mandatory for requests that use AK/SK authentication in the Dedicated Cloud (DeC) scenario or multi-project scenario.	e9993fc787d94b6c886cbaa340f9c0f4

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Parameter	Description	Mandatory	Example Value
X-Auth-Token	User token. It is a response to the API for **obtaining a user token**. This API is the only one that does not require authentication. After the request is processed, the value of **X-Subject-Token** in the response header is the token value.	No This field is mandatory for token authentication.	The following is part of an example token: MIIPAgYJKoZIhvcNAQc-Co...ggg1BBIINPXsidG9rZ

NOTE

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

For details, see "AK/SK-based Authentication" in **Authentication**.

For the API for **creating an IAM user as an administrator**, if AK/SK-based authentication is enabled, the request with the header is as follows:

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

Request Body (Optional)

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

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

In the case of the API used to **create an IAM user**, the request parameters and parameter description can be obtained from the API request. The following provides an example request with a body included. Replace the fields in bold with the actual values.

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

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NOTE

The **scope** parameter specifies where a token takes effect. You can set **scope** to an account or a project under an account. For details, see **Obtaining a User Token**.

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3.0/OS-USER/users
Content-Type: application/json
X-Sdk-Date: 20240416T095341Z
Authorization: SDK-HMAC-SHA256 Access=**********, SignedHeaders=content-type;host;x-sdk-date,
Signature=**********

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

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

3.2 Authentication

You can use either of the following authentication methods when calling APIs:

- AK/SK-based authentication: Requests are authenticated by encrypting the request body using an AK/SK pair. AK/SK-based authentication is recommended because it is more secure than token-based authentication.
- Token-based authentication: Requests are authenticated using a token.

AK/SK-based Authentication

NOTE

- AK/SK-based authentication supports API requests with a body not larger than 12 MB. For API requests with a larger body, token-based authentication is recommended.
- You can use the AK/SK in a permanent or temporary access key. The **X-Security-Token** field must be configured if the AK/SK in a temporary access key is used, and the field value is **security_token** of the temporary access key.

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

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

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

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NOTICE

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

Token-based Authentication

NOTE

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

A token is used to acquire temporary permissions. During API authentication using a token, the token is added to requests to get permissions for calling the API.

You can obtain a token by calling the **Obtaining a User Token** API. When you call the API, set **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. For example, if the token is **ABCDEFG....**, add **X-Auth-Token: ABCDEFG....** to a request as follows:

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

3.3 Response

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

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Status Code

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

If status code 201 is returned for the API for **creating an IAM user as an administrator**, the request is successful.

Response Header

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

For the API for **creating an IAM user as an administrator**, the message header shown in **Figure 3-2** is returned.

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 (Optional)

The body of a response is often returned in structured format as specified in the **Content-type** header field. The response body transfers content except the response header.

For the API for **creating an IAM user as an administrator**, the following message body is returned. The following is part of the response body:

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

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```
        "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 API Calling Examples

This section describes how to create a log group by calling APIs.

NOTE

The token obtained from Identity and Access Management (IAM) is valid for only 24 hours. If you want to use the same token for authentication, cache it to avoid frequent calling of the IAM API.

Involved APIs

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

- IAM API used to obtain the token
- LTS API used to create a log group

Procedure

1. Obtain the token by referring to **Making an API Request** .
2. Send **POST /v2/{project_id}/groups**.
3. Add **Content-Type** and **X-Auth-Token** to the request header.
4. Specify the following parameters in the request body:

```
POST /v2/{project_id}/groups
{
"log_group_name":"test001", //Log group name (The parameter is mandatory and its value is a string.)
"ttl_in_days":"7",  //Log expiration time (The value is an integer. Retain the default value.)
}
```

If the request is successful, information about the created log group is returned.

```
{
"log_group_id":"2a0089e4-3001-11e9-9e9d-286ed48xxx", //Log group ID (The value is a string.)
}
```

If the request fails, an error code and error description are returned. For details, see **Error Codes**.

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5 Examples

5.1 Example 1: Creating a Log Group

Scenario

This section describes how to create a log group in LTS.

Other Involved APIs

None

Creating a Log Group

- URI format

POST /v2/{project_id}/groups

- Example Request

POST https://{endpoint}/v2/{project_id}/groups

Obtain the value of *{endpoint}* from **Endpoints**.

Body:

```
{
  "log_group_name": "lts-group-01nh",
  "ttl_in_days": 7
}
```

- Example Response

```
{
  "log_group_id" : "string"
}
```

5.2 Example 2: Querying All Log Groups of an Account

Scenario

This section describes how to query all log groups of an account.

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Other Involved APIs

None

Querying Log Groups

- URI format

GET /v2/{project_id}/groups

- Example Request

GET https://{endpoint}/v2/{project_id}/groups

Obtain the value of *{endpoint}* from **Endpoints**.

- Example Response

```
{"log_groups" : [{"creation_time" : number,"log_group_name" : "string","log_group_id" :
"string","ttl_in_days" : 1}]}
```

5.3 Example 3: Creating a Log Stream

Scenario

This section describes how to create a log stream in a specified log group.

Other Involved APIs

None

Creating a Log Stream

- URI format

POST /v2/{project_id}/groups/{log_group_id}/streams

- Example Request

POST https://{endpoint}/v2/{project_id}/groups/{log_group_id}/streams

Obtain the value of *{endpoint}* from **Endpoints**.

Body:

```
{
  "log_stream_name": "lts-stream-02kh"
}
```

- Example Response

```
{
  "log_stream_id" : "string"
}
```

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5.4 Example 4: Querying All Log Streams in a Log Group

Scenario

This section describes how to query information about all log streams in a specified log group.

Other Involved APIs

None

Querying Log Streams

- URI format

GET /v2/{project_id}/groups/{log_group_id}/streams

- Example Request

GET https://{endpoint}/v2/{project_id}/groups/{log_group_id}/streams

Obtain the value of *{endpoint}* from **Endpoints**.

- Example Response

```
{
  "log_streams" : [ {
    "creation_time" : number,
    "log_stream_name" : "string",
    "log_stream_id" : "string",
    "filter_count" : number
  } ]
}
```

5.5 Example 5: Transferring Logs to OBS

Scenario

This section describes how to transfer logs of one or more log streams to OBS.

Other Involved APIs

Call the following API to obtain the name of the OBS bucket to which logs will be transferred:

Listing Buckets

Transferring Logs to OBS

- URI format

POST /v2/{project_id}/log-dump/obs

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- Example Request

POST https://{endpoint}/v2/{project_id}/log-dump/obs

Obtain the value of *{endpoint}* from **Endpoints**.

Body:

```
{
  "log_group_id": "d9dba9f3-xxxx-48bd-xxxx-xxxxa24a8053",
  "log_stream_ids": ["45e7f609-xxxx-4cd3-835b-xxxx4a124718"],
  "obs_bucket_name": "lts-test",
  "type": "cycle",
  "storage_format": "RAW",
  "switch_on": "true",
  "prefix_name": "fileprefixname",
  "dir_prefix_name": "dirprefixname",
  "period": 5,
  "period_unit": "min"
}
```

- Example Response

```
{
  "log_dump_obs_id" : "45fdc36b-xxxx-4567-xxxx-559xxxxdf968"
}
```

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6 APIs

All API URIs described in this chapter are case-sensitive.

6.1 Host Group Management

6.1.1 Querying Hosts

Function

This API is used to query all hosts, including the host names, IP addresses, and ICAgent statuses. This helps you quickly locate the hosts where ICAgent is not installed.

Calling Method

For details, see **Calling APIs**.

URI

POST /v3/{project_id}/lts/host-list

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Table 6-1 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints:** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-3 Request body parameters

Parameter	Mandatory	Type	Description
host_id_list	No	Array of strings	**Definition** Host ID list. Hosts can be filtered by host ID. **Constraints** N/A
filter	Yes	**GetHostListFilter** object	**Definition** Filtering parameters for querying hosts. **Constraints** N/A

Table 6-4 GetHostListFilter

Parameter	Mandatory	Type	Description
host_name_list	No	Array of strings	**Definition** Host name list. Hosts can be filtered by host name. **Constraints** N/A
host_ip_list	No	Array of strings	**Definition** Host IP address list. Hosts can be filtered by host IP address. **Constraints** N/A

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Parameter	Mandatory	Type	Description
host_status	No	String	**Definition** ICAgent status of a host. Hosts can be filtered by ICAgent status. **Constraints** You can only enter supported ICAgent statuses. **Range** • **running** • **offline** • **faulty** • **plugin error** • **installing** • **install-failed** • **upgrading** • **upgrade failed** • **uninstalling** • **authentication error** **Default Value** N/A
host_version	No	String	**Definition** ICAgent version of a host. Hosts can be filtered by ICAgent version. **Constraints** N/A **Range** Minimum characters: 0 Maximum characters: 15 **Default Value** N/A

Response Parameters

Status code: 200

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Table 6-5 Response body parameters

Parameter	Type	Description
result	Array of **GetHostListInfo** objects	**Definition** Host list.
total	Long	**Definition** Total number of hosts that meet the filter criteria. **Range** N/A

Table 6-6 GetHostListInfo

Parameter	Type	Description
host_id	String	**Definition** Host ID. **Range** N/A
host_ip	String	**Definition** Host IP address. **Range** N/A
host_name	String	**Definition** Host name. **Range** N/A

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Parameter	Type	Description
host_status	String	**Definition** ICAgent status of a host. **Range** • **uninstalled** • **running** • **offline** • **faulty** • **plugin error** • **installing** • **install-failed** • **upgrading** • **upgrade failed** • **uninstalling** • **authentication error**
host_type	String	**Definition** Host type. Two host group types are supported: Windows and Linux. **Range** • **windows** • **linux**
host_version	String	**Definition** ICAgent version of a host. **Range** N/A
update_time	Long	**Definition** Latest update time of the host or ICAgent (timestamp in milliseconds), for example, the time when the host is started, shut down, or restarted, or its ICAgent is upgraded or reinstalled. **Range** N/A

Status code: 400

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Table 6-7 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-8 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Query hosts and filter them based on the request body. If no filters are provided in the body, all hosts are returned.

```
POST https://{endpoint}/v3/{project_id}/lts/host-list

{
  "host_id_list" : [ "713a9f81-574b-45aa-92df-24c4caxxxxxx", "c7085aa9-2142-4ada-9f78-bf81ffxxxxxx" ],
  "filter" : {
    "host_name_list" : [ "ecs-xxxx", "10.66.16xxx" ],
    "host_ip_list" : [ "192.168xxxx" ],
    "host_status" : "ruxxxx",
    "host_version" : "5.13.xxxx"
  }
}
```

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Example Responses

Status code: 200

The host list query is successful.

```
{
  "result" : [ {
    "host_id" : "dc1dab7e-b045-4e77-bda4-914xxxxxx",
    "host_ip" : "172.16.xxxx",
    "host_name" : "ecs-apmtexxxxxx",
    "host_status" : "xxxxxx",
    "host_type" : "xxxxx",
    "host_version" : "5.13.xx.x",
    "update_time" : 1637223314526
  } ],
  "total" : 1
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.1807",
  "error_msg" : "Invalid host id"
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0010",
  "error_msg" : "Internal Server Error"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Query hosts and filter them based on the request body. If no filters are provided in the body, all hosts are returned.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class ListHostSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
```

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```
environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListHostRequest request = new ListHostRequest();
        GetHostListRequestBody body = new GetHostListRequestBody();
        List<String> listFilterHostIpList = new ArrayList<>();
        listFilterHostIpList.add("192.168xxxx");
        List<String> listFilterHostNameList = new ArrayList<>();
        listFilterHostNameList.add("ecs-xxxx");
        listFilterHostNameList.add("10.66.16xxx");
        GetHostListFilter filterbody = new GetHostListFilter();
        filterbody.withHostNameList(listFilterHostNameList)
            .withHostIpList(listFilterHostIpList)
            .withHostStatus(GetHostListFilter.HostStatusEnum.fromValue("ruxxxx"))
            .withHostVersion("5.13.xxxx");
        List<String> listbodyHostIdList = new ArrayList<>();
        listbodyHostIdList.add("713a9f81-574b-45aa-92df-24c4caxxxxxx");
        listbodyHostIdList.add("c7085aa9-2142-4ada-9f78-bf81ffxxxxxx");
        body.withFilter(filterbody);
        body.withHostIdList(listbodyHostIdList);
        request.withBody(body);
        try {
            ListHostResponse response = client.listHost(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Query hosts and filter them based on the request body. If no filters are provided in the body, all hosts are returned.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
```

```
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListHostRequest()
        listHostIpListFilter = [
            "192.168xxxx"
        ]
        listHostNameListFilter = [
            "ecs-xxxx",
            "10.66.16xxx"
        ]
        filterbody = GetHostListFilter(
            host_name_list=listHostNameListFilter,
            host_ip_list=listHostIpListFilter,
            host_status="ruxxxx",
            host_version="5.13.xxxx"
        )
        listHostIdListbody = [
            "713a9f81-574b-45aa-92df-24c4caxxxxxx",
            "c7085aa9-2142-4ada-9f78-bf81ffxxxxxx"
        ]
        request.body = GetHostListRequestBody(
            filter=filterbody,
            host_id_list=listHostIdListbody
        )
        response = client.list_host(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Query hosts and filter them based on the request body. If no filters are provided in the body, all hosts are returned.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
```

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```
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListHostRequest{}
    var listHostIpListFilter = []string{
        "192.168xxxx",
    }
    var listHostNameListFilter = []string{
        "ecs-xxxx",
        "10.66.16xxx",
    }
    hostStatusFilter:= model.GetGetHostListFilterHostStatusEnum().RUXXXX
    hostVersionFilter:= "5.13.xxxx"
    filterbody := &model.GetHostListFilter{
        HostNameList: &listHostNameListFilter,
        HostIpList: &listHostIpListFilter,
        HostStatus: &hostStatusFilter,
        HostVersion: &hostVersionFilter,
    }
    var listHostIdListbody = []string{
        "713a9f81-574b-45aa-92df-24c4caxxxxxx",
        "c7085aa9-2142-4ada-9f78-bf81ffxxxxxx",
    }
    request.Body = &model.GetHostListRequestBody{
        Filter: filterbody,
        HostIdList: &listHostIdListbody,
    }
    response, err := client.ListHost(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The host list query is successful.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

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Error Codes

See **Error Codes**.

6.1.2 Querying Host Groups

Function

This API is used to query the host group list, including details about all host groups in the account. It provides data support for host resource management.

Calling Method

For details, see **Calling APIs**.

URI

POST /v3/{project_id}/lts/host-group-list

Table 6-9 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Request Parameters

Table 6-10 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints:** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-11 Request body parameters

Parameter	Mandatory	Type	Description
host_group_id_list	No	Array of strings	**Definition** Host group ID list. Host groups can be filtered by host group ID. **Constraints** N/A
filter	Yes	**GetHostGroupListFilter** object	**Definition** Filtering parameters for querying host groups. **Constraints** N/A

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Table 6-12 GetHostGroupListFilter

Parameter	Mandatory	Type	Description
host_group_type	No	String	**Definition** Host group type. Two types are supported: Windows and Linux. **Constraints** N/A **Range** • **windows** • linux **Default Value** N/A
host_group_name_list	No	Array of strings	**Definition** Host group name list. **Constraints** N/A
host_name_list	No	Array of strings	**Definition** Host name list. **Constraints** N/A
host_group_tag	No	**GetHostGroupListTag** object	**Definition** Host group tags. **Constraints** You can add up to 20 tags.

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Table 6-13 GetHostGroupListTag

Parameter	Mandatory	Type	Description
tag_type	No	String	**Definition** Logical type of tag filtering. It is used to filter resources based on multiple tag conditions. **Constraints** N/A **Range** • **AND**: filters for resources that contain all specified tags. • **OR**: filters for resources that contain at least one of the specified tags. **Default Value** N/A
tag_list	No	Array of **HostGroupTag** objects	**Definition** Host group tags. Tags are key-value pairs. The key is the unique identifier for the tag, and the value is its corresponding data. Example: **{"env": "test"}** **Constraints** N/A

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Table 6-14 HostGroupTag

Parameter	Mandatory	Type	Description
key	No	String	**Definition** Tag key. **Constraints** • Each tag key must be unique. • A tag is a key-value pair. Each key is paired with its corresponding value. **Range** A tag key can contain letters, digits, spaces, and special characters (_.:=+-@), but cannot start or end with a space or start with *sys*. A tag key can contain up to 128 characters. **Default Value** N/A
value	No	String	**Definition** Tag value. **Constraints** A tag is a key-value pair. Each key is paired with its corresponding value. **Range** • A tag value can contain letters, digits, spaces, and special characters (_.:=+-@). • A tag value can contain up to 255 characters. **Default Value** N/A

Response Parameters

Status code: 200

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Table 6-15 Response body parameters

Parameter	Type	Description
result	Array of **GetHostGroupInfo** objects	**Definition** Host group information list.
total	Long	**Definition** Total number of host groups. **Range** N/A

Table 6-16 GetHostGroupInfo

Parameter	Type	Description
host_group_id	String	**Definition** Host group ID. **Range** N/A
host_group_name	String	**Definition** Host group name. **Range** N/A
host_group_type	String	**Definition** Host group type. **Range** • **linux** • **windows**
host_id_list	Array of strings	**Definition** Host ID list.
host_group_tag	Array of **HostGroupTagResBody** objects	**Definition** Host group tags.
create_time	Long	**Definition** Time when the host group was created. **Range** N/A

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Parameter	Type	Description
update_time	Long	**Definition** Time when the host group was updated. **Range** N/A
agent_access_type	String	**Definition** Host group type. The value can be **IP** or **LABEL**. **Range** • **IP** • **LABEL**
labels	Array of strings	**Definition** Custom identifier of the host group.

Table 6-17 HostGroupTagResBody

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

Status code: 400

Table 6-18 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-19 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Query host groups and filter them based on the request body. If no filters are provided in the body, all host groups are returned.

```
POST https://{endpoint}/v3/{project_id}/lts/host-group-list

{
  "host_group_id_list" : [ "bca6d903-3528-42a8-91f4-586722cxxxxx" ],
  "filter" : {
    "host_group_type" : "lixxx",
    "host_group_name_list" : [ "wjyTxxx", "xxxest" ],
    "host_name_list" : [ "ecs-apmtexxxdeletion" ],
    "host_group_tag" : {
      "tag_type" : "AND",
      "tag_list" : [ {
        "key" : "xxx",
        "value" : "xxx"
      } ]
    }
  }
}
```

Example Responses

Status code: 200

The host group list query is successful.

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```
{
  "result" : [ {
    "host_group_id" : "598c77aa-c69b-42f0-8cb8-xxxx5b38",
    "host_group_name" : "devspoxxxou1",
    "host_group_type" : "lxxux",
    "host_id_list" : [ "dc1dab7e-b04xxxx", "xxxxx" ],
    "host_group_tag" : [ {
      "key" : "xxx",
      "value" : "xxx"
    }, {
      "key" : "xxx",
      "value" : "xxx"
    } ],
    "create_time" : 1635459410332,
    "update_time" : 163560332
  } ],
  "total" : 1
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.1807",
  "error_msg" : "Invalid host group id"
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0010",
  "error_msg" : "Internal Server Error"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Query host groups and filter them based on the request body. If no filters are provided in the body, all host groups are returned.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class ListHostGroupSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
```

```
        // In this example, AK and SK are stored in environment variables for authentication. Before running
this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListHostGroupRequest request = new ListHostGroupRequest();
        GetHostGroupListRequestBody body = new GetHostGroupListRequestBody();
        List<HostGroupTag> listHostGroupTagTagList = new ArrayList<>();
        listHostGroupTagTagList.add(
            new HostGroupTag()
                .withKey("xxx")
                .withValue("xxx")
        );
        GetHostGroupListTag hostGroupTagFilter = new GetHostGroupListTag();
        hostGroupTagFilter.withTagType(GetHostGroupListTag.TagTypeEnum.fromValue("AND"))
            .withTagList(listHostGroupTagTagList);
        List<String> listFilterHostNameList = new ArrayList<>();
        listFilterHostNameList.add("ecs-apmtexxxdeletion");
        List<String> listFilterHostGroupNameList = new ArrayList<>();
        listFilterHostGroupNameList.add("wjyTxxx");
        listFilterHostGroupNameList.add("xxxest");
        GetHostGroupListFilter filterbody = new GetHostGroupListFilter();
        filterbody.withHostGroupType(GetHostGroupListFilter.HostGroupTypeEnum.fromValue("lixxx"))
            .withHostGroupNameList(listFilterHostGroupNameList)
            .withHostNameList(listFilterHostNameList)
            .withHostGroupTag(hostGroupTagFilter);
        List<String> listbodyHostGroupIdList = new ArrayList<>();
        listbodyHostGroupIdList.add("bca6d903-3528-42a8-91f4-586722cxxxxx");
        body.withFilter(filterbody);
        body.withHostGroupIdList(listbodyHostGroupIdList);
        request.withBody(body);
        try {
            ListHostGroupResponse response = client.listHostGroup(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Query host groups and filter them based on the request body. If no filters are provided in the body, all host groups are returned.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
```

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```
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListHostGroupRequest()
        listTagListHostGroupTag = [
            HostGroupTag(
                key="xxx",
                value="xxx"
            )
        ]
        hostGroupTagFilter = GetHostGroupListTag(
            tag_type="AND",
            tag_list=listTagListHostGroupTag
        )
        listHostNameListFilter = [
            "ecs-apmtexxxdeletion"
        ]
        listHostGroupNameListFilter = [
            "wjyTxxx",
            "xxxest"
        ]
        filterbody = GetHostGroupListFilter(
            host_group_type="lixxx",
            host_group_name_list=listHostGroupNameListFilter,
            host_name_list=listHostNameListFilter,
            host_group_tag=hostGroupTagFilter
        )
        listHostGroupIdListbody = [
            "bca6d903-3528-42a8-91f4-586722cxxxxx"
        ]
        request.body = GetHostGroupListRequestBody(
            filter=filterbody,
            host_group_id_list=listHostGroupIdListbody
        )
        response = client.list_host_group(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Query host groups and filter them based on the request body. If no filters are provided in the body, all host groups are returned.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
```

```
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListHostGroupRequest{}
    keyTagList:= "xxx"
    valueTagList:= "xxx"
    var listTagListHostGroupTag = []model.HostGroupTag{
        {
            Key: &keyTagList,
            Value: &valueTagList,
        },
    }
    tagTypeHostGroupTag:= model.GetGetHostGroupListTagTagTypeEnum().AND
    hostGroupTagFilter := &model.GetHostGroupListTag{
        TagType: &tagTypeHostGroupTag,
        TagList: &listTagListHostGroupTag,
    }
    var listHostNameListFilter = []string{
        "ecs-apmtexxxdeletion",
    }
    var listHostGroupNameListFilter = []string{
        "wjyTxxx",
        "xxxest",
    }
    hostGroupTypeFilter:= model.GetGetHostGroupListFilterHostGroupTypeEnum().LIXXX
    filterbody := &model.GetHostGroupListFilter{
        HostGroupType: &hostGroupTypeFilter,
        HostGroupNameList: &listHostGroupNameListFilter,
        HostNameList: &listHostNameListFilter,
        HostGroupTag: hostGroupTagFilter,
    }
    var listHostGroupIdListbody = []string{
        "bca6d903-3528-42a8-91f4-586722cxxxxx",
    }
    request.Body = &model.GetHostGroupListRequestBody{
        Filter: filterbody,
        HostGroupIdList: &listHostGroupIdListbody,
    }
    response, err := client.ListHostGroup(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

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More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The host group list query is successful.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.1.3 Creating a Host Group

Function

This API is used to create a host group for managing hosts by group.

Calling Method

For details, see **Calling APIs**.

URI

POST /v3/{project_id}/lts/host-group

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Table 6-20 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-21 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints:** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-22 Request body parameters

Parameter	Mandatory	Type	Description
host_group_name	Yes	String	**Definition** Host group name. **Constraints** N/A **Range** • Use only letters, digits, hyphens (-), underscores (_), and periods (.). Do not start with a period or underscore or end with a period. • Enter 1 to 64 characters for each name. **Default Value** N/A
host_group_type	Yes	String	**Definition** Host group type. Two host group types are supported: Windows and Linux. **Constraints** N/A **Range** • **linux** • **windows** **Default Value** N/A
host_id_list	No	Array of strings	**Definition** Host ID list. The host type must be the same as the host group type. **Constraints** N/A
host_group_tag	No	Array of **HostGroupTag** objects	**Definition** Host group tags. **Constraints** You can add up to 20 tags.

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Table 6-23 HostGroupTag

Parameter	Mandatory	Type	Description
key	No	String	**Definition** Tag key. **Constraints** • Each tag key must be unique. • A tag is a key-value pair. Each key is paired with its corresponding value. **Range** A tag key can contain letters, digits, spaces, and special characters (_.:=+-@), but cannot start or end with a space or start with *sys*. A tag key can contain up to 128 characters. **Default Value** N/A
value	No	String	**Definition** Tag value. **Constraints** A tag is a key-value pair. Each key is paired with its corresponding value. **Range** • A tag value can contain letters, digits, spaces, and special characters (_.:=+-@). • A tag value can contain up to 255 characters. **Default Value** N/A

Response Parameters

Status code: 200

Table 6-24 Response body parameters

Parameter	Type	Description
host_group_id	String	**Definition** Host group ID. **Range** N/A
host_group_name	String	**Definition** Host group name. **Range** N/A
host_group_type	String	**Definition** Host group type. **Range** • **linux** • **windows**
host_id_list	Array of strings	**Definition** Host ID list.
host_group_tag	Array of **HostGroupTagResBody** objects	**Definition** Host group tags.
create_time	Long	**Definition** Time when the host group was created. **Range** N/A
update_time	Long	**Definition** Time when the host group was updated. **Range** N/A
agent_access_type	String	**Definition** Host group type. The value can be **IP** or **LABEL**. **Range** • **IP** • **LABEL**
labels	Array of strings	**Definition** Custom identifier of the host group.

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Table 6-25 HostGroupTagResBody

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

Status code: 400

Table 6-26 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-27 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Create a host group. Parameters **host_group_name** and **host_group_type** are mandatory.

```
POST https://{endpoint}/v3/{project_id}/lts/host-group

{
  "host_group_name" : "APIxx3",
  "host_group_type" : "linxx",
  "host_id_list" : [ "dc1dab7e-b045-4e77xxd1bf7", "713a9fxx2df-24c4ca599def" ],
  "host_group_tag" : [ {
    "key" : "xxx",
    "value" : "xxx"
  }, {
    "key" : "xxx1",
    "value" : "xxx"
  } ]
}
```

Example Responses

Status code: 200

The host group is created.

```
{
  "host_group_id" : "598c77aa-c69b-42f0-8cb8-983178ad5b38",
  "host_group_name" : "devspore_app_dzhou1",
  "host_group_type" : "linux",
  "host_id_list" : [ "dc1dab7e-b045-4e77-bda4-914d083d1bf7", "xxxxx" ],
  "host_group_tag" : [ {
    "key" : "xxx",
    "value" : "xxx"
  } ],
  "create_time" : 1635149410332,
  "update_time" : 1635149410332
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.1807",
  "error_msg" : "Invalid host group id"
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0010",
```

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```
  "error_msg" : "Internal Server Error"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Create a host group. Parameters **host_group_name** and **host_group_type** are mandatory.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateHostGroupSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateHostGroupRequest request = new CreateHostGroupRequest();
        CreateHostGroupRequestBody body = new CreateHostGroupRequestBody();
        List<HostGroupTag> listbodyHostGroupTag = new ArrayList<>();
        listbodyHostGroupTag.add(
            new HostGroupTag()
                .withKey("xxx")
                .withValue("xxx")
        );
        listbodyHostGroupTag.add(
            new HostGroupTag()
                .withKey("xxx1")
                .withValue("xxx")
        );
        List<String> listbodyHostIdList = new ArrayList<>();
        listbodyHostIdList.add("dc1dab7e-b045-4e77xxd1bf7");
        listbodyHostIdList.add("713a9fxx2df-24c4ca599def");
        body.withHostGroupTag(listbodyHostGroupTag);
        body.withHostIdList(listbodyHostIdList);
        body.withHostGroupType(CreateHostGroupRequestBody.HostGroupTypeEnum.fromValue("linxx"));
        body.withHostGroupName("APIxx3");
```

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```
        request.withBody(body);
        try {
            CreateHostGroupResponse response = client.createHostGroup(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Create a host group. Parameters **host_group_name** and **host_group_type** are mandatory.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateHostGroupRequest()
        listHostGroupTagbody = [
            HostGroupTag(
                key="xxx",
                value="xxx"
            ),
            HostGroupTag(
                key="xxx1",
                value="xxx"
            )
        ]
        listHostIdListbody = [
            "dc1dab7e-b045-4e77xxd1bf7",
            "713a9fxx2df-24c4ca599def"
        ]
        request.body = CreateHostGroupRequestBody(
            host_group_tag=listHostGroupTagbody,
            host_id_list=listHostIdListbody,
            host_group_type="linxx",
            host_group_name="APIxx3"
```

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```
        )
        response = client.create_host_group(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Create a host group. Parameters **host_group_name** and **host_group_type** are mandatory.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateHostGroupRequest{}
    keyHostGroupTag:= "xxx"
    valueHostGroupTag:= "xxx"
    keyHostGroupTag1:= "xxx1"
    valueHostGroupTag1:= "xxx"
    var listHostGroupTagbody = []model.HostGroupTag{
        {
            Key: &keyHostGroupTag,
            Value: &valueHostGroupTag,
        },
        {
            Key: &keyHostGroupTag1,
            Value: &valueHostGroupTag1,
        },
    }
    var listHostIdListbody = []string{
        "dc1dab7e-b045-4e77xxd1bf7",
        "713a9fxx2df-24c4ca599def",
    }
    request.Body = &model.CreateHostGroupRequestBody{
        HostGroupTag: &listHostGroupTagbody,
        HostIdList: &listHostIdListbody,
        HostGroupType: model.GetCreateHostGroupRequestBodyHostGroupTypeEnum().LINXX,
```

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```
        HostGroupName: "APIxx3",
    }
    response, err := client.CreateHostGroup(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The host group is created.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.1.4 Deleting a Host Group

Function

Delete a host group.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v3/{project_id}/lts/host-group

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Table 6-28 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-29 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-30 Request body parameters

Parameter	Mandatory	Type	Description
host_group_id_list	Yes	Array of strings	**Definition** Host group ID list. **Constraints** N/A

Response Parameters

Status code: 200

Table 6-31 Response body parameters

Parameter	Type	Description
result	Array of GetHostGroupInfo objects	**Definition** Host group details.
total	Long	**Definition** Total number of hosts that meet the filter criteria. **Range** N/A

Table 6-32 GetHostGroupInfo

Parameter	Type	Description
host_group_id	String	**Definition** Host group ID. **Range** N/A
host_group_name	String	**Definition** Host group name. **Range** N/A
host_group_type	String	**Definition** Host group type. **Range** • **linux** • **windows**

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Parameter	Type	Description
host_id_list	Array of strings	**Definition** Host ID list.
host_group_tag	Array of **HostGroupTagResBody** objects	**Definition** Host group tags.
create_time	Long	**Definition** Time when the host group was created. **Range** N/A
update_time	Long	**Definition** Time when the host group was updated. **Range** N/A
agent_access_type	String	**Definition** Host group type. The value can be **IP** or **LABEL**. **Range** • **IP** • **LABEL**
labels	Array of strings	**Definition** Custom identifier of the host group.

Table 6-33 HostGroupTagResBody

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

Status code: 400

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Table 6-34 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-35 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Delete one or multiple host groups at a time.

```
DELETE https://{endpoint}/v3/{project_id}/lts/host-group

{
  "host_group_id_list" : [ "xxxx", "xxxx" ]
}
```

Example Responses

Status code: 200

Host groups are deleted.

```
{
   "result" : [{
```

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```
            "host_group_id" : "598c77aa-c69b-42f0-8cb8-xxxx5b38",
            "host_group_name" : "devspoxxxou1",
            "host_group_type" : "lxxux",
            "host_id_list" : ["dc1dab7e-b04xxxx", "xxxxx"],
            "host_group_tag" : [{
                  "key" : "xxx",
                  "value" : "xxx"
               }, {
                  "key" : "xxx",
                  "value" : "xxx"
               }
            ],
            "create_time" : 1635xx9410332,
            "update_time" : 163xx0332
         }
   ],
   "total" : 1
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.1807",
  "error_msg" : "Invalid host group id"
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0010",
  "error_msg" : "Internal Server Error"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Delete one or multiple host groups at a time.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class DeleteHostGroupSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
```

```
this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteHostGroupRequest request = new DeleteHostGroupRequest();
        DeleteHostGroupRequestBody body = new DeleteHostGroupRequestBody();
        List<String> listbodyHostGroupIdList = new ArrayList<>();
        listbodyHostGroupIdList.add("xxxx");
        listbodyHostGroupIdList.add("xxxx");
        body.withHostGroupIdList(listbodyHostGroupIdList);
        request.withBody(body);
        try {
            DeleteHostGroupResponse response = client.deleteHostGroup(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Delete one or multiple host groups at a time.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteHostGroupRequest()
```

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```
        listHostGroupIdListbody = [
            "xxxx",
            "xxxx"
        ]
        request.body = DeleteHostGroupRequestBody(
            host_group_id_list=listHostGroupIdListbody
        )
        response = client.delete_host_group(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Delete one or multiple host groups at a time.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteHostGroupRequest{}
    var listHostGroupIdListbody = []string{
        "xxxx",
        "xxxx",
    }
    request.Body = &model.DeleteHostGroupRequestBody{
        HostGroupIdList: listHostGroupIdListbody,
    }
    response, err := client.DeleteHostGroup(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

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More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Host groups are deleted.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.1.5 Modifying a Host Group

Function

Modify a host group.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v3/{project_id}/lts/host-group

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Table 6-36 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-37 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-38 Request body parameters

Parameter	Mandatory	Type	Description
host_group_id	Yes	String	**Definition** Host group ID. **Constraints** N/A **Range** N/A **Default Value** N/A
host_group_name	No	String	**Definition** Host group name. **Constraints** N/A **Range** • Use only letters, digits, hyphens (-), underscores (_), and periods (.). Do not start with a period or underscore or end with a period. • Enter 1 to 64 characters for each name. **Default Value** N/A
host_id_list	No	Array of strings	**Definition** Host ID list. The host type must be the same as the host group type. **Constraints** N/A
host_group_tag	No	Array of **HostGroupTag** objects	**Definition** Host group tags. **Constraints** You can add up to 20 tags.

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Table 6-39 HostGroupTag

Parameter	Mandatory	Type	Description
key	No	String	**Definition** Tag key. **Constraints** • Each tag key must be unique. • A tag is a key-value pair. Each key is paired with its corresponding value. **Range** A tag key can contain letters, digits, spaces, and special characters (_.:=+-@), but cannot start or end with a space or start with *sys*. A tag key can contain up to 128 characters. **Default Value** N/A
value	No	String	**Definition** Tag value. **Constraints** A tag is a key-value pair. Each key is paired with its corresponding value. **Range** • A tag value can contain letters, digits, spaces, and special characters (_.:=+-@). • A tag value can contain up to 255 characters. **Default Value** N/A

Response Parameters

Status code: 200

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Table 6-40 Response body parameters

Parameter	Type	Description
host_group_id	String	**Definition** Host group ID. **Range** N/A
host_group_name	String	**Definition** Host group name. **Range** N/A
host_group_type	String	**Definition** Host group type. **Range** • **linux** • **windows**
host_id_list	Array of strings	**Definition** Host ID list.
host_group_tag	Array of **HostGroupTag** objects	**Definition** Host group tags.
create_time	Long	**Definition** Time when the host group was created. **Range** N/A
update_time	Long	**Definition** Time when the host group was updated. **Range** N/A
agent_access_type	String	**Definition** Host access type. **Range** • **IP** • **LABEL**

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Table 6-41 HostGroupTag

Parameter	Type	Description
key	String	**Definition** Tag key. **Constraints** • Each tag key must be unique. • A tag is a key-value pair. Each key is paired with its corresponding value. **Range** A tag key can contain letters, digits, spaces, and special characters (_.:=+-@), but cannot start or end with a space or start with *sys*. A tag key can contain up to 128 characters. **Default Value** N/A
value	String	**Definition** Tag value. **Constraints** A tag is a key-value pair. Each key is paired with its corresponding value. **Range** • A tag value can contain letters, digits, spaces, and special characters (_.:=+-@). • A tag value can contain up to 255 characters. **Default Value** N/A

Status code: 400

Table 6-42 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-43 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Update a host group. Parameter **host_group_id** is mandatory.

```
PUT https://{endpoint}/v3/{project_id}/lts/host-group

{
  "host_group_id" : "xxxxxx",
  "host_group_name" : "qweqwe",
  "host_id_list" : [ "host_id_1", "host_id_2" ],
  "host_group_tag" : [ {
    "key" : "xxx",
    "value" : "xxx"
  } ]
}
```

Example Responses

Status code: 200

The host group is modified.

```
{
  "host_group_id" : "598c77aa-c69b-42f0-8cb8-983178b38",
  "host_group_name" : "devspore_app_dzhou1",
  "host_group_type" : "linux",
  "agent_access_type" : "IP",
  "host_id_list" : [ "dc1dab7e-b045-4e77-bda4-914d3f7", "xxxxx" ],
```

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```
 "host_group_tag" : [ {
   "key" : "xxx",
   "value" : "xxx"
 }, {
   "key" : "xxx",
   "value" : "xxx"
 } ],
 "create_time" : 16351494332,
 "update_time" : 16351494332
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
 "error_code" : "LTS.1807",
 "error_msg" : "Invalid host group id"
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
 "error_code" : "LTS.0010",
 "error_msg" : "Internal Server Error"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Update a host group. Parameter **host_group_id** is mandatory.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class UpdateHostGroupSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
```

```
            .withSk(sk);

    LtsClient client = LtsClient.newBuilder()
            .withCredential(auth)
            .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
            .build();
    UpdateHostGroupRequest request = new UpdateHostGroupRequest();
    UpdateHostGroupRequestBody body = new UpdateHostGroupRequestBody();
    List<HostGroupTag> listbodyHostGroupTag = new ArrayList<>();
    listbodyHostGroupTag.add(
        new HostGroupTag()
            .withKey("xxx")
            .withValue("xxx")
    );
    List<String> listbodyHostIdList = new ArrayList<>();
    listbodyHostIdList.add("host_id_1");
    listbodyHostIdList.add("host_id_2");
    body.withHostGroupTag(listbodyHostGroupTag);
    body.withHostIdList(listbodyHostIdList);
    body.withHostGroupName("qweqwe");
    body.withHostGroupId("xxxxxx");
    request.withBody(body);
    try {
        UpdateHostGroupResponse response = client.updateHostGroup(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
  }
}
```

Python

Update a host group. Parameter **host_group_id** is mandatory.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
```

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```
        request = UpdateHostGroupRequest()
        listHostGroupTagbody = [
            HostGroupTag(
                key="xxx",
                value="xxx"
            )
        ]
        listHostIdListbody = [
            "host_id_1",
            "host_id_2"
        ]
        request.body = UpdateHostGroupRequestBody(
            host_group_tag=listHostGroupTagbody,
            host_id_list=listHostIdListbody,
            host_group_name="qweqwe",
            host_group_id="xxxxxx"
        )
        response = client.update_host_group(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Update a host group. Parameter **host_group_id** is mandatory.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateHostGroupRequest{}
    keyHostGroupTag:= "xxx"
    valueHostGroupTag:= "xxx"
    var listHostGroupTagbody = []model.HostGroupTag{
        {
            Key: &keyHostGroupTag,
            Value: &valueHostGroupTag,
        },
```

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```
    }
    var listHostIdListbody = []string{
        "host_id_1",
        "host_id_2",
    }
    hostGroupNameUpdateHostGroupRequestBody:= "qweqwe"
    request.Body = &model.UpdateHostGroupRequestBody{
        HostGroupTag: &listHostGroupTagbody,
        HostIdList: &listHostIdListbody,
        HostGroupName: &hostGroupNameUpdateHostGroupRequestBody,
        HostGroupId: "xxxxxx",
    }
    response, err := client.UpdateHostGroup(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The host group is modified.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.2 Log Group Management

6.2.1 Creating a Log Group

Function

This API is used to create a log group. Log groups are the basic units of log management in LTS. They are designed to classify log streams. You can create log streams in each log group to facilitate log management.

Calling Method

For details, see **Calling APIs**.

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URI

POST /v2/{project_id}/groups

Table 6-44 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-45 Query Parameters

Parameter	Mandatory	Type	Description
enterprise_project_id	No	String	**Definition** Enterprise project ID. For details about how to obtain it, see **Obtaining an Enterprise Project ID**. **Constraints:** N/A **Range** N/A **Default Value** **default**

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Request Parameters

Table 6-46 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints:** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-47 Request body parameters

Parameter	Mandatory	Type	Description
log_group_name	Yes	String	**Definition** Name of the log group to be created. **Constraints** The log group name cannot be the same as the current or original name of another log group. **Range** • Use only letters, digits, hyphens (-), underscores (_), and periods (.). Do not start with a period or underscore or end with a period. • Enter 1 to 64 characters. **Default Value** N/A
ttl_in_days	Yes	Integer	**Definition** Log retention period for a log group. It determines how many days a log group's logs will be stored in LTS. **Constraints** N/A **Range** Minimum value: **1** Maximum value: **365** **Default Value** **30**: By default, log data is stored for 30 days.
tags	No	Array of **tagsBody** objects	**Definition** Log group tags. **Constraints** You can add up to 20 tags.

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Parameter	Mandatory	Type	Description
log_group_name_alias	No	String	**Definition** Log group alias. **Constraints** The log group alias cannot be the same as the name or original name of another log group. **Range** • Use only letters, digits, underscores (_), hyphens (-), and periods (.). Do not start with a period or underscore or end with a period. • Enter 1 to 64 characters. **Default Value** N/A

Table 6-48 tagsBody

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition** Tag key. **Constraints** • Each tag key must be unique. • A tag is a key-value pair. Each key is paired with its corresponding value. **Range** Each tag key can contain up to 128 characters, including only letters, digits, spaces, and special characters (_.:=+-@). Do not start or end with a space, nor start with *sys*. **Default Value** N/A

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Parameter	Mandatory	Type	Description
value	No	String	**Definition** Tag value. **Constraints** A tag is a key-value pair. Each key is paired with its corresponding value. **Range** • A tag value can contain letters, digits, spaces, and special characters (_.:=+-@). • A tag value can contain up to 255 characters. **Default Value** N/A

Response Parameters

Status code: 201

Table 6-49 Response body parameters

Parameter	Type	Description
log_group_id	String	**Definition** ID of the log group to be created. **Range** N/A

Status code: 400

Table 6-50 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 401

Table 6-51 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 403

Table 6-52 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

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Table 6-53 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 503

Table 6-54 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Create a log group.

```
POST https://{endpoint}/v2/{project_id}/groups

{
  "log_group_name" : "lts-group-01nh",
  "ttl_in_days" : 7
}
```

Example Responses

Status code: 201

The request is successful and the log group has been created.

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```
{
  "log_group_id" : "b6b9332b-091f-4b22-b810-264318d2d664"
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.0009",
  "error_msg" : "Failed to validate the request body"
}
```

Status code: 401

Authentication failed. Check the token and try again.

```
{
  "error_code" : "LTS.0003",
  "error_msg" : "Invalid token"
}
```

Status code: 403

Request rejected.The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.

```
{
  "error_code" : "LTS.0001",
  "error_msg" : "Invalid projectId"
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0102",
  "error_msg" : "Failed to create log group"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Create a log group.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class CreateLogGroupSolution {

    public static void main(String[] args) {
```

```
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateLogGroupRequest request = new CreateLogGroupRequest();
        CreateLogGroupParams body = new CreateLogGroupParams();
        body.withTtlInDays(7);
        body.withLogGroupName("lts-group-01nh");
        request.withBody(body);
        try {
            CreateLogGroupResponse response = client.createLogGroup(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Create a log group.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()
```

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```
    try:
        request = CreateLogGroupRequest()
        request.body = CreateLogGroupParams(
            ttl_in_days=7,
            log_group_name="lts-group-01nh"
        )
        response = client.create_log_group(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Create a log group.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateLogGroupRequest{}
    request.Body = &model.CreateLogGroupParams{
        TtlInDays: int32(7),
        LogGroupName: "lts-group-01nh",
    }
    response, err := client.CreateLogGroup(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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Status Codes

Status Code	Description
201	The request is successful and the log group has been created.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
401	Authentication failed. Check the token and try again.
403	Request rejected.The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.
500	The server has received the request but encountered an internal error.
503	The requested service is unavailable.

Error Codes

See **Error Codes**.

6.2.2 Querying All Log Groups of an Account

Function

This API is used to quickly query the list and information of all log groups of a specified account, helping you fully understand log management and resource distribution in the account.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/groups

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Table 6-55 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-56 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints:** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Response Parameters

Status code: 200

Table 6-57 Response body parameters

Parameter	Type	Description
log_groups	Array of **LogGroup** objects	**Definition** Log group information list.

Table 6-58 LogGroup

Parameter	Type	Description
creation_time	Long	**Definition** Log group creation time. **Range** N/A
log_group_name	String	**Definition** Log group name. **Range** N/A
log_group_id	String	**Definition** Log group ID. **Range** N/A
ttl_in_days	Integer	**Definition** Log retention period for a log group. It determines how many days a log group's logs will be stored in LTS. **Range** N/A
tag	Map<String,String>	**Definition** Log group tags. A tag is a key-value pair. Each key is paired with its corresponding value.

Status code: 401

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Table 6-59 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 403

Table 6-60 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-61 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Query all log groups of an account.

```
GET https://{endpoint}/v2/{project_id}/groups

/v2/{project_id}/groups
```

Example Responses

Status code: 200

The request is successful.

```
{
  "log_groups" : [ {
    "creation_time" : 1630547141853,
    "log_group_name" : "lts-group-01nh",
    "log_group_id" : "b6b9332b-091f-4b22-b810-264318d2d664",
    "ttl_in_days" : 7
  } ]
}
```

Status code: 401

Authentication failed. Check the token and try again.

```
{
  "error_code" : "LTS.0003",
  "error_msg" : "Invalid token"
}
```

Status code: 403

Request rejected. The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.

```
{
  "error_code" : "LTS.0001",
  "error_msg" : "Invalid projectId"
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0010",
  "error_msg" : "The system encountered an internal error"
}
```

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Status Codes

Status Code	Description
200	The request is successful.
401	Authentication failed. Check the token and try again.
403	Request rejected. The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.2.3 Deleting a Log Group

Function

This API is used to delete a specified log group. If you no longer need a log group, you can delete it to release resources. If log transfer is enabled for log streams in this log group, you need to disable log transfer before the deletion.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/{project_id}/groups/{log_group_id}

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Table 6-62 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A
log_group_id	Yes	String	**Definition** Log group ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-63 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints:** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 204

The request is successful and the log group has been deleted.

Status code: 400

Table 6-64 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 401

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Table 6-65 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 403

Table 6-66 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-67 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Delete a log group.

```
DELETE https://{endpoint}/v2/{project_id}/groups/{log_group_id}

/v2/{project_id}/groups/{log_group_id}
```

Example Responses

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.0201",
  "error_msg" : "The log group is not existed"
}
```

Status code: 401

Authentication failed. Check the token and try again.

```
{
  "error_code" : "LTS.0003",
  "error_msg" : "Invalid token"
}
```

Status code: 403

Request rejected.The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.

```
{
  "error_code" : "LTS.0001",
  "error_msg" : "Invalid projectId"
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0103",
  "error_msg" : "Failed to delete log group"
}
```

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Status Codes

Status Code	Description
204	The request is successful and the log group has been deleted.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
401	Authentication failed. Check the token and try again.
403	Request rejected.The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.2.4 Modifying a Log Group

Function

This API is used to modify the log retention period of a specified log group. You can flexibly adjust the period to facilitate log data storage and management in different scenarios.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/groups/{log_group_id}

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Table 6-68 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A
log_group_id	Yes	String	**Definition** Log group ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-69 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints:** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-70 Request body parameters

Parameter	Mandatory	Type	Description
ttl_in_days	Yes	Integer	**Definition** Log retention period for a log group. It determines how many days a log group's logs will be stored in LTS. **Constraints** N/A **Range** Minimum value: **1** Maximum value: **365** **Default Value** **30**: By default, log data is stored for 30 days.
tags	No	Array of **tagsBody** objects	**Definition** Log group tags. **Constraints** You can add up to 20 tags.

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Table 6-71 tagsBody

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition** Tag key. **Constraints** • Each tag key must be unique. • A tag is a key-value pair. Each key is paired with its corresponding value. **Range** Each tag key can contain up to 128 characters, including only letters, digits, spaces, and special characters (_.:=+-@). Do not start or end with a space, nor start with *sys*. **Default Value** N/A
value	No	String	**Definition** Tag value. **Constraints** A tag is a key-value pair. Each key is paired with its corresponding value. **Range** • A tag value can contain letters, digits, spaces, and special characters (_.:=+-@). • A tag value can contain up to 255 characters. **Default Value** N/A

Response Parameters

Status code: 200

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Table 6-72 Response body parameters

Parameter	Type	Description
creation_time	Long	**Definition** Time when the log group was created. **Range** N/A
log_group_name	String	**Definition** Log group name. **Range** N/A
log_group_id	String	**Definition** Log group ID. **Range** N/A
ttl_in_days	Integer	**Definition** Log retention period for a log group. It determines how many days a log group's logs will be stored in LTS. **Range** N/A

Status code: 400

Table 6-73 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 401

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Table 6-74 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 403

Table 6-75 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-76 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Modify a log group.

```
POST https://{endpoint}/v2/{project_id}/groups/{log_group_id}

{
  "ttl_in_days" : 8
}
```

Example Responses

Status code: 200

The request is successful and the log group has been modified.

```
{
  "creation_time" : 156541515155541,
  "log_group_name" : "string",
  "log_group_id" : "string",
  "ttl_in_days" : 8
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.0009",
  "error_msg" : "Failed to validate the request body"
}
```

Status code: 401

Authentication failed. Check the token and try again.

```
{
  "error_code" : "LTS.0414",
  "error_msg" : "Invalid token"
}
```

Status code: 403

Request rejected.The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.

```
{
  "error_code" : "LTS.0001",
  "error_msg" : "Invalid projectId"
}
```

Status code: 500

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The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0102",
  "error_msg" : "Failed to update log group"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Modify a log group.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class UpdateLogGroupSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateLogGroupRequest request = new UpdateLogGroupRequest();
        request.withLogGroupId("{log_group_id}");
        UpdateLogGroupParams body = new UpdateLogGroupParams();
        body.withTtlInDays(8);
        request.withBody(body);
        try {
            UpdateLogGroupResponse response = client.updateLogGroup(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
```

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```
    }
}
```

Python

Modify a log group.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateLogGroupRequest()
        request.log_group_id = "{log_group_id}"
        request.body = UpdateLogGroupParams(
            ttl_in_days=8
        )
        response = client.update_log_group(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Modify a log group.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
```

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```
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateLogGroupRequest{}
    request.LogGroupId = "{log_group_id}"
    request.Body = &model.UpdateLogGroupParams{
        TtlInDays: int32(8),
    }
    response, err := client.UpdateLogGroup(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The request is successful and the log group has been modified.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
401	Authentication failed. Check the token and try again.
403	Request rejected.The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.3 Log Stream Management

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6.3.1 Creating a Log Stream

Function

This API is used to create a log stream. You can create log streams in a specified log group to organize logs by category, facilitating log locating and analysis.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/groups/{log_group_id}/streams

Table 6-77 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A
log_group_id	Yes	String	**Definition** Log group ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Request Parameters

Table 6-78 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints:** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-79 Request body parameters

Parameter	Mandatory	Type	Description
log_stream_name	Yes	String	**Definition** Name of the log stream. **Constraints** N/A **Range** • Use only letters, digits, hyphens (-), underscores (_), and periods (.). Do not start with a period or underscore or end with a period. • Enter 1 to 64 characters. • Each log stream name must be unique. **Default Value** N/A
ttl_in_days	No	Integer	**Definition** Log retention period for a log stream. It determines how many days a log stream's logs will be stored in LTS. **Constraints** If not specified, the value inherits the log group's retention period by default. **Range** Minimum value: 1 day Maximum value: 365 days **Default Value** **30**: By default, log data is stored for 30 days.
tags	No	Array of **tagsBody** objects	**Definition** Log stream tags. **Constraints** You can add up to 20 tags.

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Parameter	Mandatory	Type	Description
log_stream_name_alias	No	String	**Definition** Log stream alias. **Constraints** The log stream alias cannot be the same as the name or original name of another log stream. **Range** • Use only letters, digits, hyphens (-), underscores (_), and periods (.). Do not start with a period or underscore or end with a period. • Enter 1 to 64 characters. **Default Value** N/A
enterprise_project_name	No	String	**Definition** Enterprise project name. For details about how to obtain it, see **Obtaining an Enterprise Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-80 tagsBody

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition** Tag key. **Constraints** • Each tag key must be unique. • A tag is a key-value pair. Each key is paired with its corresponding value. **Range** Each tag key can contain up to 128 characters, including only letters, digits, spaces, and special characters (_.:=+-@). Do not start or end with a space, nor start with *sys*. **Default Value** N/A
value	No	String	**Definition** Tag value. **Constraints** A tag is a key-value pair. Each key is paired with its corresponding value. **Range** • A tag value can contain letters, digits, spaces, and special characters (_.:=+-@). • A tag value can contain up to 255 characters. **Default Value** N/A

Response Parameters

Status code: 201

Table 6-81 Response body parameters

Parameter	Type	Description
log_stream_id	String	**Definition** ID of the log stream to be created. **Range** N/A

Status code: 400

Table 6-82 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 401

Table 6-83 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 403

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Table 6-84 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-85 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Create a log stream.

```
POST https://{endpoint}/v2/{project_id}/groups/{log_group_id}/streams

{
  "log_stream_name" : "lts-stream-02kh"
}
```

Example Responses

Status code: 201

The request is successful and the log stream has been created.

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```
{
  "log_stream_id" : "c54dbc58-0fd8-48ed-b007-6d54981427a7"
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.0009",
  "error_msg" : "Failed to validate the request body"
}
```

Status code: 401

Authentication failed. Check the token and try again.

```
{
  "error_code" : "LTS.0003",
  "error_msg" : "Invalid token"
}
```

Status code: 403

Request rejected. The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.

```
{
  "error_code" : "LTS.0001",
  "error_msg" : "Invalid projectId"
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0202",
  "error_msg" : "Failed to create Log stream"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Create a log stream.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class CreateLogStreamSolution {

    public static void main(String[] args) {
```

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```
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateLogStreamRequest request = new CreateLogStreamRequest();
        request.withLogGroupId("{log_group_id}");
        CreateLogStreamParams body = new CreateLogStreamParams();
        body.withLogStreamName("lts-stream-02kh");
        request.withBody(body);
        try {
            CreateLogStreamResponse response = client.createLogStream(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Create a log stream.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()
```

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```
    try:
        request = CreateLogStreamRequest()
        request.log_group_id = "{log_group_id}"
        request.body = CreateLogStreamParams(
            log_stream_name="lts-stream-02kh"
        )
        response = client.create_log_stream(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Create a log stream.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateLogStreamRequest{}
    request.LogGroupId = "{log_group_id}"
    request.Body = &model.CreateLogStreamParams{
        LogStreamName: "lts-stream-02kh",
    }
    response, err := client.CreateLogStream(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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Status Codes

Status Code	Description
201	The request is successful and the log stream has been created.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
401	Authentication failed. Check the token and try again.
403	Request rejected. The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.3.2 Querying All Log Streams in a Specified Log Group

Function

This API is used to query all log streams in a specified log group. You can obtain the details about these log streams and their log events, addressing various log management needs.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/groups/{log_group_id}/streams

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Table 6-86 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A
log_group_id	Yes	String	**Definition** Log group ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-87 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints:** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

Table 6-88 Response body parameters

Parameter	Type	Description
log_streams	Array of **LogStreamResBody** objects	**Definition** Log stream configuration information.

Table 6-89 LogStreamResBody

Parameter	Type	Description
creation_time	Long	**Definition** Time when the log stream was created. The value must be a UNIX timestamp, measured in milliseconds from January 1, 1970, 00:00:00 UTC. **Range** Minimum value: **1577808000000** Maximum value: **4102416000000**
log_stream_id	String	**Definition** Log stream ID. **Range** N/A

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Parameter	Type	Description
log_stream_name	String	**Definition** Log stream name. **Range** N/A
log_stream_name_alias	String	**Definition** Log stream alias. **Range** N/A
tag	Map<String,String>	**Definition** Log stream tags. Tag information of a log stream. A tag is a key-value pair. Each key is paired with its corresponding value. ● *Key*: Each tag key must be unique. It can contain up to 128 characters, including letters, digits, spaces, and the following special characters: _.:=+-@. It cannot start or end with a space or start with *sys*. ● **Value**: It can contain up to 255 characters, including letters, digits, spaces, and the following special characters: _.:=+-@
filter_count	Integer	**Definition** Number of filters. This parameter has been brought offline. **Range** N/A
is_favorite	Boolean	**Definition** Whether to add a log stream to favorites. **Range** ● **true**: adds the log stream to favorites. ● **false**: does not add log streams to favorites.
whether_log_storage	Boolean	**Definition** Whether to enable log storage. **Range** ● **true**: enables log storage. ● **false**: disables log storage.

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Parameter	Type	Description
hot_cold_separation	Boolean	**Definition** Whether to enable cold storage. **Range** • **true**: enables cold storage. • **false**: disables cold storage.
auth_web_tracking	Boolean	**Definition** Whether to enable anonymous write. **Range** • **true**: enables anonymous write. • **false**: disables anonymous write.
ttl_in_days	Integer	**Definition** Log retention period for a log group. It determines how many days a log group's logs will be stored in LTS. **Range** N/A. If the value is set to **-1**, the log stream inherits the storage period from its log group by default.
hot_storage_days	Integer	**Definition** Standard storage period. **Range** N/A. If the value is set to **-1**, cold and hot storage is disabled for the log stream.

Status code: 401

Table 6-90 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 403

Table 6-91 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-92 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Query all log streams in a specified log group.

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```
GET https://{endpoint}/v2/{project_id}/groups/{log_group_id}/streams

/v2/{project_id}/groups/{log_group_id}/streams
```

Example Responses

Status code: 200

The request is successful.

```
{
  "log_streams" : [ {
    "log_stream_name_alias" : "3",
    "creation_time" : 1723102152593,
    "auth_web_tracking" : false,
    "log_stream_name" : "3",
    "is_favorite" : false,
    "hot_storage_days" : -1,
    "tag" : {
      "_sys_enterprise_project_id" : "0"
    },
    "hot_cold_separation" : false,
    "filter_count" : 0,
    "log_stream_id" : "667293b4-7f6d-4efb-9b30-xxxxxxx",
    "ttl_in_days" : -1,
    "whether_log_storage" : true
  }, {
    "log_stream_name_alias" : "5",
    "creation_time" : 1723102172632,
    "auth_web_tracking" : false,
    "log_stream_name" : "5",
    "is_favorite" : false,
    "hot_storage_days" : -1,
    "tag" : {
      "_sys_enterprise_project_id" : "0"
    },
    "hot_cold_separation" : false,
    "filter_count" : 0,
    "log_stream_id" : "fb08a859-69ed-4bbe-9ba0-xxxxxxxx",
    "ttl_in_days" : -1,
    "whether_log_storage" : true
  } ]
}
```

Status code: 401

Authentication failed. Check the token and try again.

```
{
  "error_code" : "LTS.0003",
  "error_msg" : "Invalid token"
}
```

Status code: 403

Request rejected. The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.

```
{
  "error_code" : "LTS.0001",
  "error_msg" : "Invalid projectId"
}
```

Status code: 500

The server has received the request but encountered an internal error.

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```
{
  "error_code" : "LTS.0010",
  "error_msg" : "The system encountered an internal error"
}
```

Status Codes

Status Code	Description
200	The request is successful.
401	Authentication failed. Check the token and try again.
403	Request rejected. The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.3.3 Querying Log Streams

Function

This API is used to query log stream details. It helps you learn about the running and management status of the log streams and provides comprehensive and accurate data support.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/log-streams

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Table 6-93 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-94 Query Parameters

Parameter	Mandatory	Type	Description
log_group_name	No	String	**Definition** Log group name. **Constraints** N/A **Range** • Use only letters, digits, hyphens (-), underscores (_), and periods (.). Do not start with a period or underscore or end with a period. • Enter 1 to 64 characters. • Each log group name must be unique. **Default Value** N/A

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Parameter	Mandatory	Type	Description
log_stream_name	No	String	**Definition** Log stream name. **Constraints** N/A **Range** • Use only letters, digits, hyphens (-), underscores (_), and periods (.). Do not start with a period or underscore or end with a period. • Enter 1 to 64 characters. • Each log stream name must be unique. **Default Value** N/A

Request Parameters

Table 6-95 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints:** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

Table 6-96 Response body parameters

Parameter	Type	Description
log_streams	Array of **LogStreamNoIsFavorite** objects	**Definition** Log stream configuration information.

Table 6-97 LogStreamNoIsFavorite

Parameter	Type	Description
creation_time	Long	**Definition** Time when the log stream was created. The value must be a UNIX timestamp, measured in milliseconds from January 1, 1970, 00:00:00 UTC. **Range** Minimum value: **1577808000000** Maximum value: **4102416000000**
log_stream_id	String	**Definition** Log stream ID. **Range** N/A

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Parameter	Type	Description
log_stream_name	String	**Definition** Log stream name. **Range** N/A
log_stream_name_alias	String	**Definition** Log stream alias. **Range** N/A
tag	Map<String,String>	**Definition** Log stream tags. Tag information of a log stream. A tag is a key-value pair. Each key is paired with its corresponding value. ● *Key*: Each tag key must be unique. It can contain up to 128 characters, including letters, digits, spaces, and the following special characters: _.:=+-@. It cannot start or end with a space or start with *sys*. ● **Value**: It can contain up to 255 characters, including letters, digits, spaces, and the following special characters: _.:=+-@
filter_count	Integer	**Definition** Number of filters. This parameter has been brought offline. **Range** N/A
hot_cold_separation	Boolean	**Definition** Whether to enable cold storage. **Range** ● **true**: enables cold storage. ● **false**: disables cold storage.
whether_log_storage	Boolean	**Definition** Whether to enable log storage. **Range** ● **true**: enables log storage. ● **false**: disables log storage.

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Parameter	Type	Description
auth_web_tracking	Boolean	**Definition** Whether to enable anonymous write. **Range** • **true**: enables anonymous write. • **false**: disables anonymous write.
ttl_in_days	Integer	**Definition** Log retention period for a log group. It determines how many days a log group's logs will be stored in LTS. **Range** N/A
hot_storage_days	Integer	**Definition** Standard storage period. **Range** N/A
is_favorite	Boolean	**Definition** Whether to add a log stream to favorites. **Range** • **true**: adds the log stream to favorites. • **false**: does not add log streams to favorites.

Status code: 400

Table 6-98 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

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Status code: 500

Table 6-99 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

If you leave the request body empty, all log streams are queried. If **log_group_name** and **log_stream_name** are specified, the corresponding log stream is queried.

```
GET https://{endpoint}/v2/{project_id}/log-streams

/v2/{project_id}/log-streams /v2/{project_id}/log-streams?log_group_name={log_group_name}
/v2/{project_id}/log-streams?log_stream_name={log_stream_name}
/v2/{project_id}/log-streams?log_stream_name={log_stream_name} &log_group_name={log_group_name}
```

Example Responses

Status code: 200

Log stream information is returned.

```
{
  "log_streams" : [ {
    "log_stream_name_alias" : "lts-topic-xxxx",
    "creation_time" : 1698915657847,
    "auth_web_tracking" : false,
    "log_stream_name" : "lts-topic-xxxx",
    "is_favorite" : false,
    "hot_storage_days" : -1,
    "tag" : {
      "_sys_enterprise_project_id" : "xxxxxx"
    },
    "hot_cold_separation" : false,
    "filter_count" : 0,
    "log_stream_id" : "xxxxxxx",
    "ttl_in_days" : 7,
    "whether_log_storage" : true
  }, {
    "log_stream_name_alias" : "lts-topic-xxxx",
    "creation_time" : 1698915650021,
    "auth_web_tracking" : false,
    "log_stream_name" : "lts-topic-xxxx",
    "is_favorite" : false,
    "hot_storage_days" : -1,
```

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```
  "tag" : {
    "_sys_enterprise_project_id" : "xxxxxxx"
  },
  "hot_cold_separation" : false,
  "filter_count" : 0,
  "log_stream_id" : "xxxxxxxxxxxxxxxxxxx",
  "ttl_in_days" : 7,
  "whether_log_storage" : true
 } ]
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.0205",
  "error_msg" : "The log stream name has been existed"
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0010",
  "error_msg" : "The system encountered an internal error"
}
```

Status Codes

Status Code	Description
200	Log stream information is returned.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.3.4 Deleting a Log Stream

Function

This API is used to delete a specified log stream from a specified log group. If log transfer is enabled for a log stream, you need to disable the log transfer before the deletion.

Calling Method

For details, see **Calling APIs**.

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URI

DELETE /v2/{project_id}/groups/{log_group_id}/streams/{log_stream_id}

Table 6-100 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**
log_group_id	Yes	String	Log group ID. For details about how to obtain a log group ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **36** Maximum: **36**
log_stream_id	Yes	String	Log stream ID. For details about how to obtain a log stream ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **36** Maximum: **36**

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Request Parameters

Table 6-101 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 204

The request is successful and the log stream has been deleted.

Status code: 400

Table 6-102 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 401

Table 6-103 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 403

Table 6-104 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

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Table 6-105 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Deleting a log stream

```
DELETE https://{endpoint}/v2/{project_id}/groups/{log_group_id}/streams/{log_stream_id}

/v2/{project_id}/groups/{log_group_id}/streams/{log_stream_id}
```

Example Responses

Status code: 400

Bad Request: The request is invalid. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.0208",
  "error_msg" : "The log stream does not existed"
}
```

Status code: 401

AuthFailed. Authentication failed. Check the token and try again.

```
{
  "error_code" : "LTS.0003",
  "error_msg" : "Invalid token"
}
```

Status code: 403

Forbidden.The request has been rejected.The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.

```
{
  "error_code" : "LTS.0001",
  "error_msg" : "Invalid projectId"
}
```

Status code: 500

InternalServerError.

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The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0203",
  "error_msg" : "Failed to delete Log stream"
}
```

Status Codes

Status Code	Description
204	The request is successful and the log stream has been deleted.
400	Bad Request: The request is invalid. Modify the request based on the description in **error_msg** before a retry.
401	AuthFailed. Authentication failed. Check the token and try again.
403	Forbidden.The request has been rejected.The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.
500	InternalServerError. The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.3.5 Creating an Index for a Specified Log Stream

Function

This API is used to create index configurations for a specified log stream. Full-text indexing and field indexing are supported. By configuring indexing, you can efficiently query and analyze logs, improving log retrieval speed.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1.0/{project_id}/groups/{group_id}/stream/{stream_id}/index/config

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Table 6-106 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A
group_id	Yes	String	**Definition** Log group ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A
stream_id	Yes	String	**Definition** Log stream ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Request Parameters

Table 6-107 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-108 Request body parameters

Parameter	Mandatory	Type	Description
logStreamId	Yes	String	**Definition** Log stream ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
fullTextIndex	Yes	**LTSFullTextIndexInfo** object	**Definition** Full-text indexing configuration information. **Constraints** N/A
fields	No	Array of **LTSFieldsInfo** objects	**Definition** Field indexing configuration information. **Constraints** N/A
sqlAnalysisEnable	No	Boolean	**Definition** Whether to enable log analysis. **Constraints** N/A **Range** **true**: enables log analysis. **false**: disables log analysis. **Default Value** **true**
fastAnalysisSampleCount	No	Long	**Definition** Number of logs sampled for quick analysis. **Constraints** N/A **Range** Minimum value: **100000** Maximum value: **10000000** **Default Value** **100000**

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Table 6-109 LTSFullTextIndexInfo

Parameter	Mandatory	Type	Description
enable	Yes	Boolean	**Definition** Whether to enable full-text indexing. **Constraints** N/A **Range** **true**: Full-text indexing is enabled. **false**: Full-text indexing is disabled. **Default Value** **true**
caseSensitive	Yes	Boolean	**Definition** Whether letters are case-sensitive when full-text indexing is enabled. **Constraints** N/A **Range** **true**: Letters are case-sensitive. **false**: Letters are case insensitive. **Default Value** false
includeChinese	Yes	Boolean	**Definition** Whether full-text indexing includes Chinese characters. **Constraints** N/A **Range** **true**: Chinese characters are included. **false**: Chinese characters are not included. **Default Value** false

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Parameter	Mandatory	Type	Description
tokenizer	Yes	String	**Definition** Delimiters. The log content can be split into multiple words based on the specified delimiters. If the default delimiters do not meet your requirements, use custom delimiters. **Constraints** N/A **Range** Minimum characters: 0 Maximum characters: 128 **Default Value** , '";=()[]{}@&<>/:\n\t\r
ascii	No	Array of strings	**Definition** ASCII delimiters. Enter ASCII values and characters by referring to **ASCII Table**. **Constraints** N/A **Range** Minimum characters: 1 Maximum characters: 3 **Default Value** N/A

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Table 6-110 LTSFieldsInfo

Parameter	Mandatory	Type	Description
fieldType	Yes	String	**Definition** Log field type for field indexing. **Constraints** N/A **Range** • **string** • **long** • **float** • **json** **Default Value** **string**
fieldName	Yes	String	**Definition** Log field name for field indexing. **Constraints** • Use only letters, digits, hyphens (-), underscores (_), and periods (.). Do not start or end with a period, or end with double underscores (__). • By default, LTS enables field indexing for some system reserved fields. For details, see section "System Reserved Fields." **Range** Field in the sample log. **Default Value** N/A

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Parameter	Mandatory	Type	Description
caseSensitive	No	Boolean	**Definition** Whether to enable case sensitivity for field indexing. **Constraints** N/A **Range** • **true**: case-sensitive • **false**: case-insensitive **Default Value** false
includeChinese	No	Boolean	**Definition** Whether field indexing includes Chinese characters. **Constraints** N/A **Range** • **true**: Chinese characters are included. • **false**: Chinese characters are not included. **Default Value** false
tokenizer	Yes	String	**Definition** Custom delimiters. **Constraints** N/A **Range** N/A **Default Value** , '";=()[]{}@&<>/:\?\n\t\r

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Parameter	Mandatory	Type	Description
quickAnalysis	No	Boolean	**Definition** Whether to enable quick analysis for field indexing. **Constraints** • The maximum length of a field for quick analysis is 2,000 bytes. • The quick analysis field area displays the first 100 records. • **true**: enables quick analysis. • **false**: disables quick analysis. **Range** **Default Value** **true**
ascii	No	Array of strings	**Definition** ASCII delimiters. **Constraints** N/A
ltsSubFieldsInfoList	No	Array of **LTSSubFieldsInfo** objects	**Definition** Field information when the field type in the field index configuration is JSON. **Constraints** N/A
fieldAnalysisAlias	No	String	**Definition** Alias. After an alias is set, you can only use that alias for SQL search and analysis. However, it cannot be used for keyword search. **Constraints** N/A **Range** Maximum 256 characters. **Default Value** N/A

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Table 6-111 LTSSubFieldsInfo

Parameter	Mandatory	Type	Description
fieldType	Yes	String	**Definition** Log field type for field indexing. **Constraints** N/A **Range** • **string** • **long** • **float** **Default Value** **string**
fieldName	Yes	String	**Definition** Log field name for field indexing. **Constraints** • Use only letters, digits, hyphens (-), underscores (_), and periods (.). Do not start or end with a period, or end with double underscores (__). • By default, LTS enables field indexing for some system reserved fields. For details, see section "System Reserved Fields." **Range** Field in the sample log. **Default Value** N/A

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Parameter	Mandatory	Type	Description
quickAnalysis	No	Boolean	**Definition** Whether to enable quick analysis for field indexing. **Constraints** • The maximum length of a field for quick analysis is 2,000 bytes. • The quick analysis field area displays the first 100 records. • **true**: enables quick analysis. • **false**: disables quick analysis. **Range** **Default Value** **true**
fieldAnalysisAlias	No	String	**Definition** Alias. After an alias is set, you can only use that alias for SQL search and analysis. However, it cannot be used for keyword search. **Constraints** N/A **Range** Maximum 256 characters. **Default Value** N/A

Response Parameters

Status code: 200

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Table 6-112 Response body parameters

Parameter	Type	Description
errorCode	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
errorMessage	String	**Definition** Error message. **Range** N/A
result	String	**Definition** Log stream ID. **Range** N/A

Status code: 400

Table 6-113 Response body parameters

Parameter	Type	Description
errorCode	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
errorMessage	String	**Definition** Error message. **Range** N/A

Status code: 401

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Table 6-114 Response body parameters

Parameter	Type	Description
errorCode	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
errorMessage	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-115 Response body parameters

Parameter	Type	Description
errorCode	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
errorMessage	String	**Definition** Error message. **Range** N/A

Example Requests

Create an index for a specified log stream.

```
POST https://{endpoint}/v1.0/{project_id}/groups/{group_id}/stream/{stream_id}/index/config

{
  "logStreamId" : "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx",
  "fullTextIndex" : {
    "enable" : true,
    "caseSensitive" : false,
    "includeChinese" : true,
    "tokenizer" : ", '\";=()[]{}@&<>/:\\n\\t\\r"
  },
  "fields" : [ {
    "fieldType" : "long",
    "fieldName" : "fieldName1",
    "caseSensitive" : false,
    "includeChinese" : true,
```

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```
    "tokenizer" : "",
    "quickAnalysis" : true
  }, {
    "fieldType" : "string",
    "fieldName" : "fieldName2",
    "caseSensitive" : false,
    "includeChinese" : true,
    "tokenizer" : "",
    "quickAnalysis" : true
  } ]
}
```

Example Responses

Status code: 200

Indexing is added successfully.

```
{
  "errorCode" : "SVCSTG.ALS.200200",
  "errorMessage" : "add or update indexConfig successfully",
  "result" : "493d04ce-5130-4b07-88be-c5ae3b50bccb"
}
```

Status code: 400

Incorrect request parameter. Modify the parameter based on the response body.

```
{
  "errorCode" : "SVCSTG.ALS.200201",
  "errorMessage" : "IndexConfigInfo check failed.",
  "isQueryComplete" : true
}
```

Status code: 401

Authentication failed. Check whether the authentication information has expired.

```
{
  "error_msg" : "Incorrect IAM authentication information: decrypt token fail",
  "error_code" : "APIGW.0301",
  "request_id" : "b16cc9d789f34cd5196d8df065341788"
}
```

Status code: 500

The service backend has received the request, but an internal processing error occurs.

```
{
  "highLightFields" : { },
  "errorCode" : "LTS.0203",
  "errorMessage" : "Internal Server Error",
  "result" : null,
  "encoded_authorization_message" : null,
  "isQueryComplete" : true
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Create an index for a specified log stream.

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```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateLogStreamIndexSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateLogStreamIndexRequest request = new CreateLogStreamIndexRequest();
        request.withGroupId("{group_id}");
        request.withStreamId("{stream_id}");
        LTSIndexConfigInfo body = new LTSIndexConfigInfo();
        List<LTSFieldsInfo> listbodyFields = new ArrayList<>();
        listbodyFields.add(
            new LTSFieldsInfo()
                .withFieldType(LTSFieldsInfo.FieldTypeEnum.fromValue("long"))
                .withFieldName("fieldName1")
                .withCaseSensitive(false)
                .withIncludeChinese(true)
                .withTokenizer("")
                .withQuickAnalysis(true)
        );
        listbodyFields.add(
            new LTSFieldsInfo()
                .withFieldType(LTSFieldsInfo.FieldTypeEnum.fromValue("string"))
                .withFieldName("fieldName2")
                .withCaseSensitive(false)
                .withIncludeChinese(true)
                .withTokenizer("")
                .withQuickAnalysis(true)
        );
        LTSFullTextIndexInfo fullTextIndexbody = new LTSFullTextIndexInfo();
        fullTextIndexbody.withEnable(true)
            .withCaseSensitive(false)
            .withIncludeChinese(true)
            .withTokenizer(", '';=()[]{}@&<>/:\n\t\r");
        body.withLogStreamId("xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx");
        body.withFields(listbodyFields);
        body.withFullTextIndex(fullTextIndexbody);
        request.withBody(body);
        try {
            CreateLogStreamIndexResponse response = client.createLogStreamIndex(request);
```

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```
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Create an index for a specified log stream.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateLogStreamIndexRequest()
        request.group_id = "{group_id}"
        request.stream_id = "{stream_id}"
        listFieldsbody = [
            LTSFieldsInfo(
                field_type="long",
                field_name="fieldName1",
                case_sensitive=False,
                include_chinese=True,
                tokenizer="",
                quick_analysis=True
            ),
            LTSFieldsInfo(
                field_type="string",
                field_name="fieldName2",
                case_sensitive=False,
                include_chinese=True,
                tokenizer="",
                quick_analysis=True
            )
        ]
        fullTextIndexbody = LTSFullTextIndexInfo(
            enable=True,
            case_sensitive=False,
```

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```
            include_chinese=True,
            tokenizer='';=()[]{}@&<>/:\n\t\r"
        )
        request.body = LTSIndexConfigInfo(
            log_stream_id="xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx",
            fields=listFieldsbody,
            full_text_index=fullTextIndexbody
        )
        response = client.create_log_stream_index(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Create an index for a specified log stream.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateLogStreamIndexRequest{}
    request.GroupId = "{group_id}"
    request.StreamId = "{stream_id}"
    caseSensitiveFields:= false
    includeChineseFields:= true
    quickAnalysisFields:= true
    caseSensitiveFields1:= false
    includeChineseFields1:= true
    quickAnalysisFields1:= true
    var listFieldsbody = []model.LtsFieldsInfo{
        {
            FieldType: model.GetLtsFieldsInfoFieldTypeEnum().LONG,
            FieldName: "fieldName1",
            CaseSensitive: &caseSensitiveFields,
            IncludeChinese: &includeChineseFields,
            Tokenizer: "",
            QuickAnalysis: &quickAnalysisFields,
```

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```
        },
        {
            FieldType: model.GetLtsFieldsInfoFieldTypeEnum().STRING,
            FieldName: "fieldName2",
            CaseSensitive: &caseSensitiveFields1,
            IncludeChinese: &includeChineseFields1,
            Tokenizer: "",
            QuickAnalysis: &quickAnalysisFields1,
        },
    }
    fullTextIndexbody := &model.LtsFullTextIndexInfo{
        Enable: true,
        CaseSensitive: false,
        IncludeChinese: true,
        Tokenizer: ", '";:=()[]{}@&<>/:\n\t\r",
    }
    request.Body = &model.LtsIndexConfigInfo{
        LogStreamId: "xxxxxxxx-xxxx-xxxx-xxxx-xxxxxxxxxxxx",
        Fields: &listFieldsbody,
        FullTextIndex: fullTextIndexbody,
    }
    response, err := client.CreateLogStreamIndex(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Indexing is added successfully.
400	Incorrect request parameter. Modify the parameter based on the response body.
401	Authentication failed. Check whether the authentication information has expired.
500	The service backend has received the request, but an internal processing error occurs.

Error Codes

See **Error Codes**.

6.3.6 Modifying a Log Stream

Function

This API is used to modify the log retention duration of a specified log stream.

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Calling Method

For details, see **Calling APIs**.

URI

PUT /v2/{project_id}/groups/{log_group_id}/streams-ttl/{log_stream_id}

Table 6-116 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **36** Maximum: **36**
log_group_id	Yes	String	Log group ID. For details about how to obtain a log group ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **36** Maximum: **36**
log_stream_id	Yes	String	Log stream ID. For details about how to obtain a log stream ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **36** Maximum: **36**

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Request Parameters

Table 6-117 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-118 Request body parameters

Parameter	Mandatory	Type	Description
ttl_in_days	Yes	Integer	Log retention period (days). Minimum: **1** Maximum: **365**
tags	No	Array of **tagsBody** objects	Tag field information.
whether_log_storage	No	Boolean	Whether to store logs.

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Table 6-119 tagsBody

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition** Tag key. **Constraints** • Each tag key must be unique. • A tag is a key-value pair. Each key is paired with its corresponding value. **Range** Each tag key can contain up to 128 characters, including only letters, digits, spaces, and special characters (_.:=+-@). Do not start or end with a space, nor start with *sys*. **Default Value** N/A
value	No	String	**Definition** Tag value. **Constraints** A tag is a key-value pair. Each key is paired with its corresponding value. **Range** • A tag value can contain letters, digits, spaces, and special characters (_.:=+-@). • A tag value can contain up to 255 characters. **Default Value** N/A

Response Parameters

Status code: 200

Table 6-120 Response body parameters

Parameter	Type	Description
creation_time	Long	Time when a log stream is created.

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Parameter	Type	Description
log_topic_name	String	Name of a log stream. Minimum: **1** Maximum: **64**
log_topic_id	String	Log stream ID. Minimum: **36** Maximum: **36**
ttl_in_days	Integer	Log retention duration (in days).

Status code: 400

Table 6-121 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 401

Table 6-122 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

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Status code: 403

Table 6-123 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-124 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Modify a log stream.

```
PUT https://{endpoint}/v2/{project_id}/groups/{log_group_id}/streams-ttl/{log_stream_id}

{
  "ttl_in_days" : 8
}
```

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Example Responses

Status code: 200

The request has succeeded and the log group has been modified.

```
{
  "creation_time" : 1629947408497,
  "log_topic_name" : "string",
  "log_topic_id" : "string",
  "ttl_in_days" : 8
}
```

Status code: 400

Bad Request: The request is invalid. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.0009",
  "error_msg" : "Failed to validate the request body"
}
```

Status code: 401

AuthFailed. Authentication failed. Check the token and try again.

```
{
  "error_code" : "LTS.0414",
  "error_msg" : "Invalid token"
}
```

Status code: 403

Forbidden. The request is rejected. The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.

```
{
  "error_code" : "LTS.0001",
  "error_msg" : "Invalid projectId"
}
```

Status code: 500

InternalServerError. The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0204",
  "error_msg" : "Failed to update log stream"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Modify a log stream.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
```

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```
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class UpdateLogStreamSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateLogStreamRequest request = new UpdateLogStreamRequest();
        request.withLogGroupId("{log_group_id}");
        request.withLogStreamId("{log_stream_id}");
        UpdateLogStreamParams body = new UpdateLogStreamParams();
        body.withTtlInDays(8);
        request.withBody(body);
        try {
            UpdateLogStreamResponse response = client.updateLogStream(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Modify a log stream.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
```

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```
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateLogStreamRequest()
        request.log_group_id = "{log_group_id}"
        request.log_stream_id = "{log_stream_id}"
        request.body = UpdateLogStreamParams(
            ttl_in_days=8
        )
        response = client.update_log_stream(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Modify a log stream.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateLogStreamRequest{}
    request.LogGroupId = "{log_group_id}"
    request.LogStreamId = "{log_stream_id}"
    request.Body = &model.UpdateLogStreamParams{
        TtlInDays: int32(8),
    }
```

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```
    response, err := client.UpdateLogStream(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The request has succeeded and the log group has been modified.
400	Bad Request: The request is invalid. Modify the request based on the description in **error_msg** before a retry.
401	AuthFailed. Authentication failed. Check the token and try again.
403	Forbidden. The request is rejected. The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.
500	InternalServerError. The server has received the request but encountered an internal error.
503	ServiceUnavailable. The requested service is unavailable.

Error Codes

See **Error Codes**.

6.3.7 Querying the Index Configurations of a Specified Log Stream

Function

This API is used to query the index configurations of a specified log stream.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1.0/{project_id}/groups/{group_id}/stream/{stream_id}/index/config

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Table 6-125 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**
group_id	Yes	String	Log group ID. For details about how to obtain a log group ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **36** Maximum: **36**
stream_id	Yes	String	Log stream ID. For details about how to obtain a log stream ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **36** Maximum: **36**

Request Parameters

Table 6-126 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

Table 6-127 Response body parameters

Parameter	Type	Description
fullTextIndex	**LTSFullTextIndex-Info** object	Full-text indexing configuration.
fields	Array of **LTSFieldsInfo** objects	Field indexing configuration.
logStreamId	String	Log stream ID.

Table 6-128 LTSFullTextIndexInfo

Parameter	Type	Description
enable	Boolean	**Definition** Whether to enable full-text indexing. **Constraints** N/A **Range** **true**: Full-text indexing is enabled. **false**: Full-text indexing is disabled. **Default Value** **true**

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Parameter	Type	Description
caseSensitive	Boolean	**Definition** Whether letters are case-sensitive when full-text indexing is enabled. **Constraints** N/A **Range** **true**: Letters are case-sensitive. **false**: Letters are case insensitive. **Default Value** false
includeChinese	Boolean	**Definition** Whether full-text indexing includes Chinese characters. **Constraints** N/A **Range** **true**: Chinese characters are included. **false**: Chinese characters are not included. **Default Value** false
tokenizer	String	**Definition** Delimiters. The log content can be split into multiple words based on the specified delimiters. If the default delimiters do not meet your requirements, use custom delimiters. **Constraints** N/A **Range** Minimum characters: 0 Maximum characters: 128 **Default Value** , '";=()[]{}@&<>/:\n\t\r

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Parameter	Type	Description
ascii	Array of strings	**Definition** ASCII delimiters. Enter ASCII values and characters by referring to **ASCII Table**. **Constraints** N/A **Range** Minimum characters: 1 Maximum characters: 3 **Default Value** N/A

Table 6-129 LTSFieldsInfo

Parameter	Type	Description
fieldType	String	**Definition** Log field type for field indexing. **Constraints** N/A **Range** • **string** • **long** • **float** • **json** **Default Value** **string**

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Parameter	Type	Description
fieldName	String	**Definition** Log field name for field indexing. **Constraints** • Use only letters, digits, hyphens (-), underscores (_), and periods (.). Do not start or end with a period, or end with double underscores (__). • By default, LTS enables field indexing for some system reserved fields. For details, see section "System Reserved Fields." **Range** Field in the sample log. **Default Value** N/A
caseSensitive	Boolean	**Definition** Whether to enable case sensitivity for field indexing. **Constraints** N/A **Range** • **true**: case-sensitive • **false**: case-insensitive **Default Value** false
includeChinese	Boolean	**Definition** Whether field indexing includes Chinese characters. **Constraints** N/A **Range** • **true**: Chinese characters are included. • **false**: Chinese characters are not included. **Default Value** false

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Parameter	Type	Description
tokenizer	String	**Definition** Custom delimiters. **Constraints** N/A **Range** N/A **Default Value** , '";=()[]{}@&<>/:\?\n\t\r
quickAnalysis	Boolean	**Definition** Whether to enable quick analysis for field indexing. **Constraints** • The maximum length of a field for quick analysis is 2,000 bytes. • The quick analysis field area displays the first 100 records. • **true**: enables quick analysis. • **false**: disables quick analysis. **Range** **Default Value** **true**
ascii	Array of strings	**Definition** ASCII delimiters. **Constraints** N/A
ltsSubFieldsInfo-List	Array of **LTSSubFieldsInfo** objects	**Definition** Field information when the field type in the field index configuration is JSON. **Constraints** N/A

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Parameter	Type	Description
fieldAnalysisAlias	String	**Definition** Alias. After an alias is set, you can only use that alias for SQL search and analysis. However, it cannot be used for keyword search. **Constraints** N/A **Range** Maximum 256 characters. **Default Value** N/A

Table 6-130 LTSSubFieldsInfo

Parameter	Type	Description
fieldType	String	**Definition** Log field type for field indexing. **Constraints** N/A **Range** • **string** • **long** • **float** **Default Value** **string**
fieldName	String	**Definition** Log field name for field indexing. **Constraints** • Use only letters, digits, hyphens (-), underscores (_), and periods (.). Do not start or end with a period, or end with double underscores (__). • By default, LTS enables field indexing for some system reserved fields. For details, see section "System Reserved Fields." **Range** Field in the sample log. **Default Value** N/A

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Parameter	Type	Description
quickAnalysis	Boolean	**Definition** Whether to enable quick analysis for field indexing. **Constraints** • The maximum length of a field for quick analysis is 2,000 bytes. • The quick analysis field area displays the first 100 records. • **true**: enables quick analysis. • **false**: disables quick analysis. **Range** **Default Value** **true**
fieldAnalysisAlias	String	**Definition** Alias. After an alias is set, you can only use that alias for SQL search and analysis. However, it cannot be used for keyword search. **Constraints** N/A **Range** Maximum 256 characters. **Default Value** N/A

Status code: 400

Table 6-131 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

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Status code: 500

Table 6-132 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Query the index configurations of a specified log stream of the current tenant. The request parameter is same as the path parameter. No request example is provided.

Example Responses

Status code: 200

The request is successful and the index configuration is queried.

```
{
  "logStreamId" : "xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx",
  "fullTextIndex" : {
    "ascii" : [ ],
    "tokenizer" : ", '\";=()[]{}@&<>/:\\n\\t\\r",
    "enable" : true,
    "caseSensitive" : true,
    "includeChinese" : false
  },
  "fields" : [ {
    "ascii" : [ ],
    "tokenizer" : ", '\";=()[]{}@&<>/:\\\\?\\n\\t\\r",
    "fieldName" : "field1",
    "caseSensitive" : false,
    "includeChinese" : true,
    "quickAnalysis" : true,
    "fieldType" : "string",
    "ltsSubFieldsInfoList" : null
  }, {
    "ascii" : [ ],
    "tokenizer" : ", '\";=()[]{}@&<>/:\\\\?\\n\\t\\r",
    "fieldName" : "field2",
    "caseSensitive" : false,
    "includeChinese" : true,
    "quickAnalysis" : true,
    "fieldType" : "string",
    "ltsSubFieldsInfoList" : null
  } ]
}
```

Status code: 400

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BadRequest: The request is invalid. Modify the request based on the description in **error_msg** before a retry.

```
{
  "errorCode" : "SVCSTG.ALS.200201",
  "errorMessage" : "Query Param is error."
}
```

Status code: 500

InternalServerError: The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0102",
  "error_msg" : "Query empty."
}
```

Status Codes

Status Code	Description
200	The request is successful and the index configuration is queried.
400	BadRequest: The request is invalid. Modify the request based on the description in **error_msg** before a retry.
500	InternalServerError: The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.4 Log Management

6.4.1 Collecting Traffic Statistics on Top N Log Groups or Log Streams

Function

This API is used to collect traffic statistics on top *n* log groups or log streams, ranking them by traffic volume. You can specify a time range and traffic type for the statistics. The results are useful for resource monitoring, abnormal traffic locating and analysis, real-time traffic statistics collection, and data backtracking.

Calling Method

For details, see **Calling APIs**.

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URI

POST /v2/{project_id}/lts/topn-traffic-statistics

Table 6-133 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-134 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-135 Request body parameters

Parameter	Mandatory	Type	Description
end_time	Yes	Long	**Definition** End time for querying logs by time range. The value is a timestamp in seconds. The time range between **start_time** and **end_time** includes both the start time and end time. **Constraints** • The maximum time range for a query is 30 days. • The values of **start_time** and **end_time** must be different. **Range** The value must be a timestamp, measured in milliseconds from January 1, 1970, 00:00:00 UTC. **Default Value** N/A

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Parameter	Mandatory	Type	Description
is_desc	Yes	Boolean	**Definition** Whether to sort the traffic. **Constraints** N/A **Range** • **true**: descending order • **false**: ascending order **Default Value** N/A
resource_type	Yes	String	**Definition** Resource ID. It varies depending on the resource type. • When the resource type is set to **log_group**, **resource_id** indicates the log group ID. • When the resource type is set to **log_stream**, **resource_id** indicates the log stream ID. • When the resource type is set to **tenant**, **resource_id** should be left empty. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
sort_by	Yes	String	**Definition** Type of traffic used for sorting. The value can be **index**, **write**, **storage**, **basicTransfer**, **seniorTransfer**, or **coldStorage**. **Constraints** N/A **Range** • **index** • **write**: read and write • **storage** • **basicTransfer**: basic transfer • **seniorTransfer**: advanced transfer • **coldStorage**: cold storage capacity **Default Value** N/A
start_time	Yes	Long	**Definition** End time for querying logs by time range. The value is a timestamp in seconds. The time range between **start_time** and **end_time** includes both the start time and end time. **Constraints** • The maximum time range for a query is 30 days. • The values of **start_time** and **end_time** must be different. **Range** The value must be a timestamp, measured in milliseconds from January 1, 1970, 00:00:00 UTC. **Default Value** N/A

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Parameter	Mandatory	Type	Description
topn	Yes	Integer	**Definition** Number of traffic records to be queried. *n* indicates the number of traffic records. **Constraints** N/A **Range** 1~100 **Default Value** N/A
filter	Yes	Map<String,String>	**Definition** Filter criteria for collecting traffic statistics. The value is a key-value pair. You can filter logs by log group ID or log stream ID. • **key**: **log_group_id** or **log_stream_id** • **value**: **log_group_id** or **log_stream_id** Example: *{ "log_group_id": "xxxxxx" }* **Constraints** N/A
search_list	Yes	Array of strings	**Definition** Traffic list to be queried. Multiple string arrays can be used together. This parameter can be set only to **index**, **write**, **storage**, **basicTransfer**, **seniorTransfer**, or **coldStorage**. Example: *"search_list": ["index", "write", "storage"]* **Constraints** N/A

Response Parameters

Status code: 200

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Table 6-136 Response body parameters

Parameter	Type	Description
results	Array of **ResultsTopnBody** objects	**Definition** Traffic statistics results of top *n* log groups or log streams.

Table 6-137 ResultsTopnBody

Parameter	Type	Description
index_traffic	Double	**Definition** Index traffic (byte), which is returned when the traffic type is set to **index**. **Range** N/A
storage	Double	**Definition** Storage traffic (byte), which is returned when the traffic type is set to **storage**. **Range** N/A
write_traffic	Double	**Definition** Read and write traffic (byte), which is returned when the traffic type is set to **write**. **Range** N/A
log_group_id	String	**Definition** Log group ID. **Range** N/A
log_group_name	String	**Definition** Log group name. **Range** N/A
log_group_name_alias	String	**Definition** Log group alias. **Range** N/A

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Parameter	Type	Description
log_stream_id	String	**Definition** Log stream ID. **Range** N/A
log_stream_name	String	**Definition** Name of the log stream. **Range** N/A
log_stream_name_alias	String	**Definition** Log stream alias. **Range** N/A
basic_transfer	Double	**Definition** Basic transfer traffic (byte), which is returned when the traffic type is set to **basicTransfer**. **Range** N/A
senior_transfer	Double	**Definition** Advanced transfer traffic (byte), which is returned when the traffic type is set to **seniorTransfer**. **Range** N/A
is_agency_transfer	Boolean	**Definition** Whether to delegate transfer. This parameter is returned when the traffic type is set to **basicTransfer** or **seniorTransfer**. **Range** N/A
cold_storage	Double	**Definition** Cold storage traffic (byte), which is returned when the traffic type is set to **coldStorage**. **Range** N/A

Status code: 400

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Table 6-138 Response body parameters

Parameter	Type	Description
errorCode	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
errorMessage	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-139 Response body parameters

Parameter	Type	Description
errorCode	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
errorMessage	String	**Definition** Error message. **Range** N/A

Example Requests

Collect traffic statistics on top *n* log groups or log streams.

```
/v2/{project_id}/lts/topn-traffic-statistics

{
  "sort_by" : "storage",
  "is_desc" : true,
  "resource_type" : "log_stream",
  "filter" : { },
  "start_time" : 1668668183969,
  "end_time" : 1669272983969,
  "search_list" : [ "index", "write", "storage" ],
  "topn" : 100
}
```

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Example Responses

Status code: 200

Query succeeded.


```
{
  "results" : [ {
    "index_traffic" : 0,
    "log_stream_id" : "6fd93d47-7630-4284-a622-311d0082f6bb",
    "log_stream_name" : "cmdb-cce-cluster",
    "storage" : 59810657587,
    "write_traffic" : 0
  }, {
    "index_traffic" : 0,
    "log_stream_id" : "504ec3dd-ac28-4783-babb-22a49f36afe3",
    "log_stream_name" : "CMSkaifatest",
    "storage" : 20033606015,
    "write_traffic" : 0
  }, {
    "index_traffic" : 6825703991,
    "log_stream_id" : "a14dacb0-5a13-43a8-89a3-ea5424d95133",
    "log_stream_name" : "ELB",
    "storage" : 15659303771,
    "write_traffic" : 1.3651407982E9
  }, {
    "index_traffic" : 302172889,
    "log_stream_id" : "25fe7494-7395-438e-8340-647613673ffa",
    "log_stream_name" : "LTStest-916-statefulset",
    "storage" : 316552589,
    "write_traffic" : 6.04345778E7
  }, {
    "index_traffic" : 0,
    "log_stream_id" : "956586fc-b828-44be-8672-0a323962a8fa",
    "log_stream_name" : "mongodb_slow",
    "storage" : 0,
    "write_traffic" : 0
  } ]
}
```


Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.


```
{
  "errorCode" : "LTS.0208",
  "errorMessage" : "The log stream does not existed"
}
```


Status code: 500

The server has received the request but encountered an internal error.


```
{
  "errorCode" : "LTS.0203",
  "errorMessage" : "Internal Server Error"
}
```


SDK Sample Code

The SDK sample code is as follows.

Java

Collect traffic statistics on top *n* log groups or log streams.

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```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;
import java.util.Map;
import java.util.HashMap;

public class ListTopnTrafficStatisticsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListTopnTrafficStatisticsRequest request = new ListTopnTrafficStatisticsRequest();
        TopnRequstBody body = new TopnRequstBody();
        List<String> listbodySearchList = new ArrayList<>();
        listbodySearchList.add("index");
        listbodySearchList.add("write");
        listbodySearchList.add("storage");
        body.withSearchList(listbodySearchList);
        body.withTopn(100);
        body.withStartTime(1668668183969L);
        body.withSortBy("storage");
        body.withResourceType("log_stream");
        body.withIsDesc(true);
        body.withEndTime(1669272983969L);
        request.withBody(body);
        try {
            ListTopnTrafficStatisticsResponse response = client.listTopnTrafficStatistics(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

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Python

Collect traffic statistics on top *n* log groups or log streams.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListTopnTrafficStatisticsRequest()
        listSearchListbody = [
            "index",
            "write",
            "storage"
        ]
        request.body = TopnRequstBody(
            search_list=listSearchListbody,
            topn=100,
            start_time=1668668183969,
            sort_by="storage",
            resource_type="log_stream",
            is_desc=True,
            end_time=1669272983969
        )
        response = client.list_topn_traffic_statistics(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Collect traffic statistics on top *n* log groups or log streams.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
```

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```
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListTopnTrafficStatisticsRequest{}
    var listSearchListbody = []string{
        "index",
        "write",
        "storage",
    }
    request.Body = &model.TopnRequstBody{
        SearchList: listSearchListbody,
        Topn: int32(100),
        StartTime: int64(1668668183969),
        SortBy: "storage",
        ResourceType: "log_stream",
        IsDesc: true,
        EndTime: int64(1669272983969),
    }
    response, err := client.ListTopnTrafficStatistics(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Query succeeded.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

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Error Codes

See **Error Codes**.

6.4.2 Querying Resources by Time Segment

Function

This API is used to query resources within a custom time range. The results are useful for monitoring resources, analyzing abnormal traffic, collecting real-time traffic statistics, and backtracking data.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/lts/timeline-traffic-statistics

Table 6-140 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-141 Query Parameters

Parameter	Mandatory	Type	Description
timezone	Yes	String	**Definition** Time zone, for example, **Asia/Shanghai**, **Europe/Paris**, or **Africa/Cairo**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-142 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-143 Request body parameters

Parameter	Mandatory	Type	Description
start_time	Yes	Long	**Definition** Start time for querying logs by time range. The value is a timestamp in seconds. The time range between **start_time** and **end_time** includes both the start time and end time. **Constraints** • The maximum time range for a query is 30 days. • The values of **start_time** and **end_time** must be different. **Range** The value must be a timestamp, measured in milliseconds from January 1, 1970, 00:00:00 UTC. **Default Value** N/A
end_time	Yes	Long	**Definition** End time for querying logs by time range. The value is a timestamp in seconds. The time range between **start_time** and **end_time** includes both the start time and end time. **Constraints** • The maximum time range for a query is 30 days. • The values of **start_time** and **end_time** must be different. **Range** The value must be a timestamp, measured in milliseconds from January 1, 1970, 00:00:00 UTC. **Default Value** N/A

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Parameter	Mandatory	Type	Description
period	Yes	Integer	**Definition** Interval between two query time ranges, in hours. **Constraints** N/A **Range** 1 to 24 hours **Default Value** N/A
resource_type	Yes	String	**Definition** Type of the resource to be queried. The options are as follows: **log_group**: log group **log_stream**: log stream **Tenant**: tenant-level **Constraints** N/A **Range** • **log_group** • **log_stream** • **tenant** **Default Value** N/A

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Parameter	Mandatory	Type	Description
search_type	Yes	String	**Definition** Type of the traffic to be queried. **Constraints** N/A **Range** • **write**: read and write • **index** • **storage** • **basicTransfer**: basic transfer • **seniorTransfer**: advanced transfer • **coldStorage**: cold storage **Default Value** N/A
resource_id	No	String	**Definition** Resource ID. It varies depending on the resource type. • When the resource type is set to **log_group**, **resource_id** indicates the log group ID. • When the resource type is set to **log_stream**, **resource_id** indicates the log stream ID. • When the resource type is set to **tenant**, **resource_id** should be left empty. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

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Table 6-144 Response body parameters

Parameter	Type	Description
results	Array of **Resulits** objects	**Definition** Resource result queried by time range.

Table 6-145 Resulits

Parameter	Type	Description
timestamp	Long	**Definition** Log timestamp within the query time range. **Range** N/A
value	Double	**Definition** Log traffic of the timestamp. **Range** N/A

Status code: 400

Table 6-146 Response body parameters

Parameter	Type	Description
errorCode	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
errorMessage	String	**Definition** Error message. **Range** N/A

Status code: 500

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Table 6-147 Response body parameters

Parameter	Type	Description
errorCode	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
errorMessage	String	**Definition** Error message. **Range** N/A

Example Requests

Query resources by time segment.

```
v2/{project_id}/lts/timeline-traffic-statistics?timezone=Asia/Shanghai

{
  "start_time" : 1668614400000,
  "end_time" : 1668787200000,
  "search_type" : "write",
  "period" : 1,
  "resource_type" : "tenant"
}
```

Example Responses

Status code: 200

Query succeeded.

```
{
  "results" : [ {
    "timestamp" : 1669046400000,
    "value" : 8.24859442E7
  }, {
    "timestamp" : 1669071600000,
    "value" : 0
  }, {
    "timestamp" : 1669161600000,
    "value" : 9.06895742E7
  }, {
    "timestamp" : 1669215600000,
    "value" : 8.81524816E7
  } ]
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "errorCode" : "LTS.0009",
```

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```
  "errorMessage" : "resource_id must not be empty"
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "errorCode" : "LTS.0203",
  "errorMessage" : "Internal Server Error"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Query resources by time segment.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class ListTimeLineTrafficStatisticsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListTimeLineTrafficStatisticsRequest request = new ListTimeLineTrafficStatisticsRequest();
        TimelineTrafficStatisticsRequestBody body = new TimelineTrafficStatisticsRequestBody();
        body.withSearchType("write");
        body.withResourceType("tenant");
        body.withPeriod(1);
        body.withEndTime(1668787200000L);
        body.withStartTime(1668614400000L);
        request.withBody(body);
        try {
            ListTimeLineTrafficStatisticsResponse response = client.listTimeLineTrafficStatistics(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
```

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```
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Query resources by time segment.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListTimeLineTrafficStatisticsRequest()
        request.body = TimelineTrafficStatisticsRequestBody(
            search_type="write",
            resource_type="tenant",
            period=1,
            end_time=1668787200000,
            start_time=1668614400000
        )
        response = client.list_time_line_traffic_statistics(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Query resources by time segment.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
```

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```
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListTimeLineTrafficStatisticsRequest{}
    request.Body = &model.TimelineTrafficStatisticsRequestBody{
        SearchType: "write",
        ResourceType: "tenant",
        Period: int32(1),
        EndTime: int64(1668787200000),
        StartTime: int64(1668614400000),
    }
    response, err := client.ListTimeLineTrafficStatistics(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Query succeeded.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

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6.4.3 Querying Logs

Function

This API is used to query logs in a specified log stream.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/groups/{log_group_id}/streams/{log_stream_id}/content/query

Table 6-148 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A
log_group_id	Yes	String	**Definition** Log group ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
log_stream_id	Yes	String	**Definition** Log stream ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-149 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints:** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-150 Request body parameters

Parameter	Mandatory	Type	Description
start_time	Yes	String	**Definition** Start time for searching for logs by time range. Log time refers to the time when a log is written. The time range between **start_time** and **end_time** includes both the start time and end time. **Constraints** • The maximum time range for a query is 180 days. • The values of **start_time** and **end_time** must be different. **Range** The value must be a timestamp, measured in milliseconds from January 1, 1970, 00:00:00 UTC. **Default Value** N/A

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Parameter	Mandatory	Type	Description
end_time	Yes	String	**Definition** End time for searching for logs by time range. Log time refers to the time when a log is written. The time range between **start_time** and **end_time** includes both the start time and end time. **Constraints** • The maximum time range for a query is 180 days. • The values of **start_time** and **end_time** must be different. **Range** The value must be a timestamp, measured in milliseconds from January 1, 1970, 00:00:00 UTC. **Default Value** N/A
labels	No	Map<String,String>	**Definition** Filter criteria for searching logs by field name and field value (key:value). **Constraints** You can use the system reserved fields. If you want to configure more fields, configure field indexing by calling the API for **creating an index for a specified log stream**.

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Parameter	Mandatory	Type	Description
keywords	No	String	**Definition** Keyword used for log search. A keyword is a word between two adjacent delimiters. Example: **error** **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
line_num	No	String	**Definition** Sequence number of a log line. This parameter identifies the log reporting sequence. It is used for pagination query and to ensure that log data is processed in the correct order. For the first query, the query starts from the beginning of the log data by default. Therefore, this parameter is not required. For subsequent pagination queries, this parameter is required to continue your search from where the last query ended. You get the value for **line_num** from the results returned by your previous query. **Constraints** • The sequence number must belong to a log that was written within the time range defined by **start_time** and **end_time**. • If the custom time function is enabled, you need to use this field and the **time** field together to ensure accurate pagination query. **Range** The value must be a UNIX timestamp, measured in nanoseconds from January 1, 1970, 00:00:00 UTC. **Default Value** N/A

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Parameter	Mandatory	Type	Description
__time__	No	String	**Definition** If the custom time function is enabled for cloud structuring, use this field and the **line_num** field together for pagination queries. The values are obtained from the results of the previous query. **Constraints** N/A **Range** The value must be a timestamp, measured in milliseconds from January 1, 1970, 00:00:00 UTC. **Default Value** N/A
is_desc	No	Boolean	**Definition** Log query order. The value can be **false** (ascending order) and **true** (descending order). **Constraints** N/A **Range** • **true**: Logs are queried in ascending order of reporting time, meaning the oldest logs are queried first. • **false**: Logs are queried in descending order of reporting time, meaning the latest logs are queried first. **Default Value** false

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Parameter	Mandatory	Type	Description
search_type	No	String	**Definition** Query type. **search_type** and **is_desc** are used together to determine whether a pagination query is in ascending or descending order. **Constraints** N/A **Range** • **init**: starts the first query. • **forwards**: queries the next page in pagination mode. • **backwards**: queries the previous page in pagination mode. **Default Value** **init**: starts the first query.
limit	No	Integer	**Definition** Number of logs to retrieve per query. Recommended value: **100**. **Constraints** N/A **Range** • Minimum value: **1** • Maximum value: **5000** **Default Value** 50
highlight	No	Boolean	**Definition** Whether to highlight log keywords in the query results. **Constraints** N/A **Range** • **true**: highlights keywords. • **false**: does not highlight keywords. **Default Value** **true**

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Parameter	Mandatory	Type	Description
is_count	No	Boolean	**Definition** Whether to count the number of logs in the query results. **Constraints** N/A **Range** • **true**: counts the logs. • **false**: does not count the logs. **Default Value** false
is_iterative	No	Boolean	**Definition** Whether to enable the log iterative query function. **Constraints** N/A **Range** • **true**: enables iterative query, returning query results in batches. This mode is applicable for querying a large volume of log data. • **false**: disables iterative query, returning all query results in a single response. This mode is suitable for a small volume of logs. **Default Value** false

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Parameter	Mandatory	Type	Description
query	No	String	**Definition** Search and analysis statements combined with the pipe character (|). For example, *num:60 | select count(*) as error_count where "request_ time" >=60 and "request_time" < 200*. For more information, see **SQL Functions**. **Constraints** This parameter is valid only when **is_analysis_query** is set to **true**. **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
is_analysis_query	No	Boolean	**Definition** Whether to enable the pipe character statement query function. When this function is enabled: • The query is performed based on the **query** parameter in the request body. • All other parameters in the request body, except for **start_time** and **end_time**, are ignored. • Pagination, sorting, and query result counting must be implemented using SQL syntax. • The query results are returned in the default column-store mode, which differs from the format used when the SQL query function is disabled. Example: {"analysisLogs": [{"field1":"1","field2":"2","field3":"3"}, {"field1":"1","field2":"2","field3":"3"}, {"field1":"1","field2":"2","field3":"3"}]} **Constraints** This function is available only to users in the internal test. For other users, the default value is **false**. **Range** • **true**: enables the pipe character statement query function. • **false**: disables the pipe character statement query function. **Default Value** false

Response Parameters

Status code: 200

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Table 6-151 Response body parameters

Parameter	Type	Description
logs	Array of **LogContents** objects	**Definition** Log information.
count	Integer	**Definition** Number of log events. **Range** N/A
isQueryComplete	Boolean	**Definition** Whether the query is complete. **Range** **true**: The query is complete. **false**: The query is not complete.
analysisLogs	Array of objects	**Definition** Response body of log analysis.

Table 6-152 LogContents

Parameter	Type	Description
content	String	**Definition** Raw log data. **Range** N/A
line_num	String	**Definition** Sequence number of a log line. **Range** N/A
labels	Map<String,String>	**Definition** Labels contained in a log event. The labels vary depending on log events.

Status code: 400

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Table 6-153 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 401

Table 6-154 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 403

Table 6-155 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-156 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

- For the first query:

```
POST https://{endpoint}/v2/{project_id}/groups/{log_group_id}/streams/{log_stream_id}/content/query

{
  "start_time" : 1595659200000,
  "end_time" : 1595659500000,
  "labels" : {
    "hostName" : "ecs-kwxtest"
  },
  "keywords" : "log",
  "limit" : 10,
  "is_count" : true
}
```

- For a pagination query (Assume that the search starts from the log event containing **NO 5**. Log events containing **NO 6**, **NO 7**, and **NO 8** are the target log events):

```
https://{endpoint}/ v2/{project_id}/groups/{log_group_id}/streams/{log_stream_id}/content/query

{
  "start_time" : 1595659200000,
  "end_time" : 1595659500000,
  "labels" : {
    "hostName" : "ecs-kwxtest"
  },
  "keywords" : "log",
```

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```
  "line_num" : "1595659490239433658",
  "is_desc" : "false",
  "search_type" : "forwards",
  "limit" : "3",
  "is_count" : true
}
```

- For a pagination query (Assume that the search starts from the log event containing **NO 5**. Log events containing **NO 8**, **NO 7**, and **NO 6** are the target log events):

```
https://{endpoint}/ v2/{project_id}/groups/{log_group_id}/streams/{log_stream_id}/content/query

{
  "start_time" : 1595659200000,
  "end_time" : 1595659500000,
  "labels" : {
    "hostName" : "ecs-kwxtest"
  },
  "keywords" : "log",
  "line_num" : "1595659490239433658",
  "is_desc" : "true",
  "search_type" : "forwards",
  "limit" : "3",
  "is_count" : true
}
```

- For a pagination query (Assume that the search starts from the log event containing **NO 5**. Log events containing **NO 2**, **NO 3**, and **NO 4** are the target log events):

```
https://{endpoint}/ v2/{project_id}/groups/{log_group_id}/streams/{log_stream_id}/content/query

{
  "start_time" : 1595659200000,
  "end_time" : 1595659500000,
  "labels" : {
    "hostName" : "ecs-kwxtest"
  },
  "keywords" : "log",
  "line_num" : "1595659490239433658",
  "is_desc" : "false",
  "search_type" : "backwards",
  "limit" : "3",
  "is_count" : true
}
```

- For a pagination query (Assume that the search starts from the log event containing **NO 5**. Log events containing **NO 4**, **NO 3**, and **NO 2** are the target log events):

```
https://{endpoint}/ v2/{project_id}/groups/{log_group_id}/streams/{log_stream_id}/content/query

{
  "start_time" : 1595659200000,
  "end_time" : 1595659500000,
  "labels" : {
    "hostName" : "ecs-kwxtest"
  },
  "keywords" : "log",
  "line_num" : "1595659490239433658",
  "is_desc" : "true",
  "search_type" : "backwards",
  "limit" : "3",
  "is_count" : true
}
```

- Analyze the statement query example.

```
https://{endpoint}/v2/{project_id}/groups/{log_group_id}/streams/{log_stream_id}/content/query

{
```

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```
  "start_time" : 1722324332801,
  "end_time" : 1722327932801,
  "query" : "* | select field1,field2 from log",
  "is_analysis_query" : true
}
```

Example Responses

Status code: 200

The request is successful.

- Querying logs for the first time

```
{
  "count" : 32,
  "logs" : [ {
    "content" : "2020-07-25/14:44:42 this <HighLightTag>log</HighLightTag> is Error NO 1",
    "labels" : {
      "hostName" : "ecs-kwxtest",
      "hostIP" : "192.168.0.156",
      "appName" : "default_appname",
      "containerName" : "CONFIG_FILE",
      "clusterName" : "CONFIG_FILE",
      "hostId" : "9787ef31-fd7b-4eff-ba71-72d580f11f55",
      "podName" : "default_procname",
      "clusterId" : "CONFIG_FILE",
      "nameSpace" : "CONFIG_FILE",
      "category" : "LTS"
    },
    "line_num" : "1595659490239433654"
  }, {
    "content" : "2020-07-25/14:44:43 this <HighLightTag>log</HighLightTag> is Error NO 2",
    "labels" : {
      "hostName" : "ecs-kwxtest",
      "hostIP" : "192.168.0.156",
      "appName" : "default_appname",
      "containerName" : "CONFIG_FILE",
      "clusterName" : "CONFIG_FILE",
      "hostId" : "9787ef31-fd7b-4eff-ba71-72d580f11f55",
      "podName" : "default_procname",
      "clusterId" : "CONFIG_FILE",
      "nameSpace" : "CONFIG_FILE",
      "category" : "LTS"
    },
    "line_num" : "1595659490239433655"
  }, {
    "content" : "2020-07-25/14:44:44 this <HighLightTag>log</HighLightTag> is Error NO 3",
    "labels" : {
      "hostName" : "ecs-kwxtest",
      "hostIP" : "192.168.0.156",
      "appName" : "default_appname",
      "containerName" : "CONFIG_FILE",
      "clusterName" : "CONFIG_FILE",
      "hostId" : "9787ef31-fd7b-4eff-ba71-72d580f11f55",
      "podName" : "default_procname",
      "clusterId" : "CONFIG_FILE",
      "nameSpace" : "CONFIG_FILE",
      "category" : "LTS"
    },
    "line_num" : "1595659490239433656"
  }, {
    "content" : "2020-07-25/14:44:45 this <HighLightTag>log</HighLightTag> is Error NO 4",
    "labels" : {
      "hostName" : "ecs-kwxtest",
      "hostIP" : "192.168.0.156",
      "appName" : "default_appname",
      "containerName" : "CONFIG_FILE",
      "clusterName" : "CONFIG_FILE",
```

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```
    "hostId" : "9787ef31-fd7b-4eff-ba71-72d580f11f55",
    "podName" : "default_procname",
    "clusterId" : "CONFIG_FILE",
    "nameSpace" : "CONFIG_FILE",
    "category" : "LTS"
  },
  "line_num" : "1595659490239433657"
}, {
  "content" : "2020-07-25/14:44:46 this <HighLightTag>log</HighLightTag> is Error NO 5",
  "labels" : {
    "hostName" : "ecs-kwxtest",
    "hostIP" : "192.168.0.156",
    "appName" : "default_appname",
    "containerName" : "CONFIG_FILE",
    "clusterName" : "CONFIG_FILE",
    "hostId" : "9787ef31-fd7b-4eff-ba71-72d580f11f55",
    "podName" : "default_procname",
    "clusterId" : "CONFIG_FILE",
    "nameSpace" : "CONFIG_FILE",
    "category" : "LTS"
  },
  "line_num" : "1595659490239433658"
}, {
  "content" : "2020-07-25/14:44:47 this <HighLightTag>log</HighLightTag> is Error NO 6",
  "labels" : {
    "hostName" : "ecs-kwxtest",
    "hostIP" : "192.168.0.156",
    "appName" : "default_appname",
    "containerName" : "CONFIG_FILE",
    "clusterName" : "CONFIG_FILE",
    "hostId" : "9787ef31-fd7b-4eff-ba71-72d580f11f55",
    "podName" : "default_procname",
    "clusterId" : "CONFIG_FILE",
    "nameSpace" : "CONFIG_FILE",
    "category" : "LTS"
  },
  "line_num" : "1595659490239433659"
}, {
  "content" : "2020-07-25/14:44:48 this <HighLightTag>log</HighLightTag> is Error NO 7",
  "labels" : {
    "hostName" : "ecs-kwxtest",
    "hostIP" : "192.168.0.156",
    "appName" : "default_appname",
    "containerName" : "CONFIG_FILE",
    "clusterName" : "CONFIG_FILE",
    "hostId" : "9787ef31-fd7b-4eff-ba71-72d580f11f55",
    "podName" : "default_procname",
    "clusterId" : "CONFIG_FILE",
    "nameSpace" : "CONFIG_FILE",
    "category" : "LTS"
  },
  "line_num" : "1595659490239433660"
}, {
  "content" : "2020-07-25/14:44:49 this <HighLightTag>log</HighLightTag> is Error NO 8",
  "labels" : {
    "hostName" : "ecs-kwxtest",
    "hostIP" : "192.168.0.156",
    "appName" : "default_appname",
    "containerName" : "CONFIG_FILE",
    "clusterName" : "CONFIG_FILE",
    "hostId" : "9787ef31-fd7b-4eff-ba71-72d580f11f55",
    "podName" : "default_procname",
    "clusterId" : "CONFIG_FILE",
    "nameSpace" : "CONFIG_FILE",
    "category" : "LTS"
  },
  "line_num" : "1595659490239433661"
}, {
  "content" : "2020-07-25/14:44:50 this <HighLightTag>log</HighLightTag> is Error NO 9",
```


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```
    "labels" : {
      "hostName" : "ecs-kwxtest",
      "hostIP" : "192.168.0.156",
      "appName" : "default_appname",
      "containerName" : "CONFIG_FILE",
      "clusterName" : "CONFIG_FILE",
      "hostId" : "9787ef31-fd7b-4eff-ba71-72d580f11f55",
      "podName" : "default_procname",
      "clusterId" : "CONFIG_FILE",
      "nameSpace" : "CONFIG_FILE",
      "category" : "LTS"
    },
    "line_num" : "1595659490839420574"
  }, {
    "content" : "2020-07-25/14:44:51 this <HighLightTag>log</HighLightTag> is Error NO 10",
    "labels" : {
      "hostName" : "ecs-kwxtest",
      "hostIP" : "192.168.0.156",
      "appName" : "default_appname",
      "containerName" : "CONFIG_FILE",
      "clusterName" : "CONFIG_FILE",
      "hostId" : "9787ef31-fd7b-4eff-ba71-72d580f11f55",
      "podName" : "default_procname",
      "clusterId" : "CONFIG_FILE",
      "nameSpace" : "CONFIG_FILE",
      "category" : "LTS"
    },
    "line_num" : "1595659491839412667"
  } ]
}
```


- For a pagination query (Assume that the search starts from the log event containing **NO 5**. Log events containing **NO 6**, **NO 7**, and **NO 8** are the target log events):


```
{
  "count" : 32,
  "logs" : [ {
    "content" : "2020-07-25/14:44:47 this <HighLightTag>log</HighLightTag> is Error NO 6",
    "labels" : {
      "hostName" : "ecs-kwxtest",
      "hostIP" : "192.168.0.156",
      "appName" : "default_appname",
      "containerName" : "CONFIG_FILE",
      "clusterName" : "CONFIG_FILE",
      "hostId" : "9787ef31-fd7b-4eff-ba71-72d580f11f55",
      "podName" : "default_procname",
      "clusterId" : "CONFIG_FILE",
      "nameSpace" : "CONFIG_FILE",
      "category" : "LTS"
    },
    "line_num" : "1595659490239433659"
  }, {
    "content" : "2020-07-25/14:44:48 this <HighLightTag>log</HighLightTag> is Error NO 7",
    "labels" : {
      "hostName" : "ecs-kwxtest",
      "hostIP" : "192.168.0.156",
      "appName" : "default_appname",
      "containerName" : "CONFIG_FILE",
      "clusterName" : "CONFIG_FILE",
      "hostId" : "9787ef31-fd7b-4eff-ba71-72d580f11f55",
      "podName" : "default_procname",
      "clusterId" : "CONFIG_FILE",
      "nameSpace" : "CONFIG_FILE",
      "category" : "LTS"
    },
    "line_num" : "1595659490239433660"
  }, {
    "content" : "2020-07-25/14:44:49 this <HighLightTag>log</HighLightTag> is Error NO 8",
    "labels" : {
```


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```
    "hostName" : "ecs-kwxtest",
    "hostIP" : "192.168.0.156",
    "appName" : "default_appname",
    "containerName" : "CONFIG_FILE",
    "clusterName" : "CONFIG_FILE",
    "hostId" : "9787ef31-fd7b-4eff-ba71-72d580f11f55",
    "podName" : "default_procname",
    "clusterId" : "CONFIG_FILE",
    "nameSpace" : "CONFIG_FILE",
    "category" : "LTS"
   },
   "line_num" : "1595659490239433661"
 } ]
}
```


- For a pagination query (Assume that the search starts from the log event containing **NO 5**. Log events containing **NO 8**, **NO 7**, and **NO 6** are the target log events):


```
{
 "count" : 32,
 "logs" : [ {
  "content" : "2020-07-25/14:44:49 this <HighLightTag>log</HighLightTag> is Error NO 8",
  "labels" : {
    "hostName" : "ecs-kwxtest",
    "hostIP" : "192.168.0.156",
    "appName" : "default_appname",
    "containerName" : "CONFIG_FILE",
    "clusterName" : "CONFIG_FILE",
    "hostId" : "9787ef31-fd7b-4eff-ba71-72d580f11f55",
    "podName" : "default_procname",
    "clusterId" : "CONFIG_FILE",
    "nameSpace" : "CONFIG_FILE",
    "category" : "LTS"
   },
   "line_num" : "1595659490239433661"
 }, {
   "content" : "2020-07-25/14:44:48 this <HighLightTag>log</HighLightTag> is Error NO 7",
   "labels" : {
     "hostName" : "ecs-kwxtest",
     "hostIP" : "192.168.0.156",
     "appName" : "default_appname",
     "containerName" : "CONFIG_FILE",
     "clusterName" : "CONFIG_FILE",
     "hostId" : "9787ef31-fd7b-4eff-ba71-72d580f11f55",
     "podName" : "default_procname",
     "clusterId" : "CONFIG_FILE",
     "nameSpace" : "CONFIG_FILE",
     "category" : "LTS"
    },
    "line_num" : "1595659490239433660"
 }, {
   "content" : "2020-07-25/14:44:47 this <HighLightTag>log</HighLightTag> is Error NO 6",
   "labels" : {
     "hostName" : "ecs-kwxtest",
     "hostIP" : "192.168.0.156",
     "appName" : "default_appname",
     "containerName" : "CONFIG_FILE",
     "clusterName" : "CONFIG_FILE",
     "hostId" : "9787ef31-fd7b-4eff-ba71-72d580f11f55",
     "podName" : "default_procname",
     "clusterId" : "CONFIG_FILE",
     "nameSpace" : "CONFIG_FILE",
     "category" : "LTS"
    },
    "line_num" : "1595659490239433659"
 } ]
}
```


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- For a pagination query (Assume that the search starts from the log event containing **NO 5**. Log events containing **NO 2**, **NO 3**, and **NO 4** are the target log events):

```
{
  "count" : 32,
  "logs" : [ {
    "content" : "2020-07-25/14:44:43 this <HighLightTag>log</HighLightTag> is Error NO 2",
    "labels" : {
      "hostName" : "ecs-kwxtest",
      "hostIP" : "192.168.0.156",
      "appName" : "default_appname",
      "containerName" : "CONFIG_FILE",
      "clusterName" : "CONFIG_FILE",
      "hostId" : "9787ef31-fd7b-4eff-ba71-72d580f11f55",
      "podName" : "default_procname",
      "clusterId" : "CONFIG_FILE",
      "nameSpace" : "CONFIG_FILE",
      "category" : "LTS"
    },
    "line_num" : "1595659490239433655"
  }, {
    "content" : "2020-07-25/14:44:44 this <HighLightTag>log</HighLightTag> is Error NO 3",
    "labels" : {
      "hostName" : "ecs-kwxtest",
      "hostIP" : "192.168.0.156",
      "appName" : "default_appname",
      "containerName" : "CONFIG_FILE",
      "clusterName" : "CONFIG_FILE",
      "hostId" : "9787ef31-fd7b-4eff-ba71-72d580f11f55",
      "podName" : "default_procname",
      "clusterId" : "CONFIG_FILE",
      "nameSpace" : "CONFIG_FILE",
      "category" : "LTS"
    },
    "line_num" : "1595659490239433656"
  }, {
    "content" : "2020-07-25/14:44:45 this <HighLightTag>log</HighLightTag> is Error NO 4",
    "labels" : {
      "hostName" : "ecs-kwxtest",
      "hostIP" : "192.168.0.156",
      "appName" : "default_appname",
      "containerName" : "CONFIG_FILE",
      "clusterName" : "CONFIG_FILE",
      "hostId" : "9787ef31-fd7b-4eff-ba71-72d580f11f55",
      "podName" : "default_procname",
      "clusterId" : "CONFIG_FILE",
      "nameSpace" : "CONFIG_FILE",
      "category" : "LTS"
    },
    "line_num" : "1595659490239433657"
  } ]
}
```

- For a pagination query (Assume that the search starts from the log event containing **NO 5**. Log events containing **NO 4**, **NO 3**, and **NO 2** are the target log events):

```
{
  "count" : 32,
  "logs" : [ {
    "content" : "2020-07-25/14:44:45 this <HighLightTag>log</HighLightTag> is Error NO 4",
    "labels" : {
      "hostName" : "ecs-kwxtest",
      "hostIP" : "192.168.0.156",
      "appName" : "default_appname",
      "containerName" : "CONFIG_FILE",
      "clusterName" : "CONFIG_FILE",
      "hostId" : "9787ef31-fd7b-4eff-ba71-72d580f11f55",
      "podName" : "default_procname",
```

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```
    "clusterId" : "CONFIG_FILE",
    "nameSpace" : "CONFIG_FILE",
    "category" : "LTS"
   },
   "line_num" : "1595659490239433657"
  }, {
   "content" : "2020-07-25/14:44:44 this <HighLightTag>log</HighLightTag> is Error NO 3",
   "labels" : {
    "hostName" : "ecs-kwxtest",
    "hostIP" : "192.168.0.156",
    "appName" : "default_appname",
    "containerName" : "CONFIG_FILE",
    "clusterName" : "CONFIG_FILE",
    "hostId" : "9787ef31-fd7b-4eff-ba71-72d580f11f55",
    "podName" : "default_procname",
    "clusterId" : "CONFIG_FILE",
    "nameSpace" : "CONFIG_FILE",
    "category" : "LTS"
   },
   "line_num" : "1595659490239433656"
  }, {
   "content" : "2020-07-25/14:44:43 this <HighLightTag>log</HighLightTag> is Error NO 2",
   "labels" : {
    "hostName" : "ecs-kwxtest",
    "hostIP" : "192.168.0.156",
    "appName" : "default_appname",
    "containerName" : "CONFIG_FILE",
    "clusterName" : "CONFIG_FILE",
    "hostId" : "9787ef31-fd7b-4eff-ba71-72d580f11f55",
    "podName" : "default_procname",
    "clusterId" : "CONFIG_FILE",
    "nameSpace" : "CONFIG_FILE",
    "category" : "LTS"
   },
   "line_num" : "1595659490239433655"
  } ]
}
```


Status code: 400

Invalid request or query statement. Modify the request based on the description in **error_msg** before a retry.


```
{
  "error_code" : "LTS.0009",
  "error_msg" : "Failed to validate the request body"
}
```


Status code: 401

Authentication failed. Check the token and try again.


```
{
  "error_code" : "LTS.0003",
  "error_msg" : "Invalid token"
}
```


Status code: 403

Request rejected. The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.


```
{
  "error_code" : "LTS.0001",
  "error_msg" : "Invalid projectId"
}
```


Status code: 500

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The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0202",
  "error_msg" : "Failed to query lts log"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

- For the first query:

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.Map;
import java.util.HashMap;

public class ListLogsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListLogsRequest request = new ListLogsRequest();
        request.withLogGroupId("{log_group_id}");
        request.withLogStreamId("{log_stream_id}");
        QueryLtsLogParams body = new QueryLtsLogParams();
        Map<String, String> listbodyLabels = new HashMap<>();
        listbodyLabels.put("hostName", "ecs-kwxtest");
        body.withLimit(10);
        body.withKeywords("log");
        body.withIsCount(true);
        body.withLabels(listbodyLabels);
        body.withEndTime("1595659500000");
        body.withStartTime("1595659200000");
        request.withBody(body);
        try {
            ListLogsResponse response = client.listLogs(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
```

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```
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- For a pagination query (Assume that the search starts from the log event containing **NO 5**. Log events containing **NO 6**, **NO 7**, and **NO 8** are the target log events):

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.Map;
import java.util.HashMap;

public class ListLogsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListLogsRequest request = new ListLogsRequest();
        request.withLogGroupId("{log_group_id}");
        request.withLogStreamId("{log_stream_id}");
        QueryLtsLogParams body = new QueryLtsLogParams();
        Map<String, String> listbodyLabels = new HashMap<>();
        listbodyLabels.put("hostName", "ecs-kwxtest");
        body.withLimit(3);
        body.withSearchType(QueryLtsLogParams.SearchTypeEnum.fromValue("forwards"));
        body.withIsDesc(false);
        body.withLineNum("1595659490239433658");
        body.withKeywords("log");
        body.withIsCount(true);
        body.withLabels(listbodyLabels);
        body.withEndTime("1595659500000");
        body.withStartTime("1595659200000");
        request.withBody(body);
        try {
```

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```
            ListLogsResponse response = client.listLogs(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- For a pagination query (Assume that the search starts from the log event containing **NO 5**. Log events containing **NO 8**, **NO 7**, and **NO 6** are the target log events):

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.Map;
import java.util.HashMap;

public class ListLogsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListLogsRequest request = new ListLogsRequest();
        request.withLogGroupId("{log_group_id}");
        request.withLogStreamId("{log_stream_id}");
        QueryLtsLogParams body = new QueryLtsLogParams();
        Map<String, String> listbodyLabels = new HashMap<>();
        listbodyLabels.put("hostName", "ecs-kwxtest");
        body.withLimit(3);
        body.withSearchType(QueryLtsLogParams.SearchTypeEnum.fromValue("forwards"));
        body.withIsDesc(true);
        body.withLineNum("1595659490239433658");
        body.withKeywords("log");
        body.withIsCount(true);
        body.withLabels(listbodyLabels);
        body.withEndTime("1595659500000");
```

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```
        body.withStartTime("1595659200000");
        request.withBody(body);
        try {
            ListLogsResponse response = client.listLogs(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- For a pagination query (Assume that the search starts from the log event containing **NO 5**. Log events containing **NO 2**, **NO 3**, and **NO 4** are the target log events):

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.Map;
import java.util.HashMap;

public class ListLogsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListLogsRequest request = new ListLogsRequest();
        request.withLogGroupId("{log_group_id}");
        request.withLogStreamId("{log_stream_id}");
        QueryLtsLogParams body = new QueryLtsLogParams();
        Map<String, String> listbodyLabels = new HashMap<>();
        listbodyLabels.put("hostName", "ecs-kwxtest");
        body.withLimit(3);
        body.withSearchType(QueryLtsLogParams.SearchTypeEnum.fromValue("backwards"));
        body.withIsDesc(false);
        body.withLineNum("1595659490239433658");
        body.withKeywords("log");
```

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```
        body.withIsCount(true);
        body.withLabels(listbodyLabels);
        body.withEndTime("1595659500000");
        body.withStartTime("1595659200000");
        request.withBody(body);
        try {
            ListLogsResponse response = client.listLogs(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- For a pagination query (Assume that the search starts from the log event containing **NO 5**. Log events containing **NO 4**, **NO 3**, and **NO 2** are the target log events):

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.Map;
import java.util.HashMap;

public class ListLogsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListLogsRequest request = new ListLogsRequest();
        request.withLogGroupId("{log_group_id}");
        request.withLogStreamId("{log_stream_id}");
        QueryLtsLogParams body = new QueryLtsLogParams();
        Map<String, String> listbodyLabels = new HashMap<>();
        listbodyLabels.put("hostName", "ecs-kwxtest");
        body.withLimit(3);
        body.withSearchType(QueryLtsLogParams.SearchTypeEnum.fromValue("backwards"));
```

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```
        body.withIsDesc(true);
        body.withLineNum("1595659490239433658");
        body.withKeywords("log");
        body.withIsCount(true);
        body.withLabels(listbodyLabels);
        body.withEndTime("1595659500000");
        body.withStartTime("1595659200000");
        request.withBody(body);
        try {
            ListLogsResponse response = client.listLogs(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- Analyze the statement query example.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class ListLogsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListLogsRequest request = new ListLogsRequest();
        request.withLogGroupId("{log_group_id}");
        request.withLogStreamId("{log_stream_id}");
        QueryLtsLogParams body = new QueryLtsLogParams();
        body.withIsAnalysisQuery(true);
        body.withQuery("* | select field1,field2 from log");
        body.withEndTime("1722327932801");
        body.withStartTime("1722324332801");
        request.withBody(body);
        try {
```

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```
            ListLogsResponse response = client.listLogs(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

- For the first query:

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListLogsRequest()
        request.log_group_id = "{log_group_id}"
        request.log_stream_id = "{log_stream_id}"
        listLabelsbody = {
            "hostName": "ecs-kwxtest"
        }
        request.body = QueryLtsLogParams(
            limit=10,
            keywords="log",
            is_count=True,
            labels=listLabelsbody,
            end_time="1595659500000",
            start_time="1595659200000"
        )
        response = client.list_logs(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

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- For a pagination query (Assume that the search starts from the log event containing **NO 5**. Log events containing **NO 6**, **NO 7**, and **NO 8** are the target log events):

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListLogsRequest()
        request.log_group_id = "{log_group_id}"
        request.log_stream_id = "{log_stream_id}"
        listLabelsbody = {
            "hostName": "ecs-kwxtest"
        }
        request.body = QueryLtsLogParams(
            limit=3,
            search_type="forwards",
            is_desc=False,
            line_num="1595659490239433658",
            keywords="log",
            is_count=True,
            labels=listLabelsbody,
            end_time="1595659500000",
            start_time="1595659200000"
        )
        response = client.list_logs(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- For a pagination query (Assume that the search starts from the log event containing **NO 5**. Log events containing **NO 8**, **NO 7**, and **NO 6** are the target log events):

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
```

```
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListLogsRequest()
        request.log_group_id = "{log_group_id}"
        request.log_stream_id = "{log_stream_id}"
        listLabelsbody = {
            "hostName": "ecs-kwxtest"
        }
        request.body = QueryLtsLogParams(
            limit=3,
            search_type="forwards",
            is_desc=True,
            line_num="1595659490239433658",
            keywords="log",
            is_count=True,
            labels=listLabelsbody,
            end_time="1595659500000",
            start_time="1595659200000"
        )
        response = client.list_logs(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- For a pagination query (Assume that the search starts from the log event containing **NO 5**. Log events containing **NO 2**, **NO 3**, and **NO 4** are the target log events):

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
```

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```
        .build()

    try:
        request = ListLogsRequest()
        request.log_group_id = "{log_group_id}"
        request.log_stream_id = "{log_stream_id}"
        listLabelsbody = {
            "hostName": "ecs-kwxtest"
        }
        request.body = QueryLtsLogParams(
            limit=3,
            search_type="backwards",
            is_desc=False,
            line_num="1595659490239433658",
            keywords="log",
            is_count=True,
            labels=listLabelsbody,
            end_time="1595659500000",
            start_time="1595659200000"
        )
        response = client.list_logs(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- For a pagination query (Assume that the search starts from the log event containing **NO 5**. Log events containing **NO 4**, **NO 3**, and **NO 2** are the target log events):

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListLogsRequest()
        request.log_group_id = "{log_group_id}"
        request.log_stream_id = "{log_stream_id}"
        listLabelsbody = {
            "hostName": "ecs-kwxtest"
        }
        request.body = QueryLtsLogParams(
            limit=3,
            search_type="backwards",
            is_desc=True,
            line_num="1595659490239433658",
```

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```
            keywords="log",
            is_count=True,
            labels=listLabelsbody,
            end_time="1595659500000",
            start_time="1595659200000"
        )
        response = client.list_logs(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- Analyze the statement query example.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListLogsRequest()
        request.log_group_id = "{log_group_id}"
        request.log_stream_id = "{log_stream_id}"
        request.body = QueryLtsLogParams(
            is_analysis_query=True,
            query="* | select field1,field2 from log",
            end_time="1722327932801",
            start_time="1722324332801"
        )
        response = client.list_logs(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

- For the first query:

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
```

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```
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListLogsRequest{}
    request.LogGroupId = "{log_group_id}"
    request.LogStreamId = "{log_stream_id}"
    var listLabelsbody = map[string]string{
        "hostName": "ecs-kwxtest",
    }
    limitQueryLtsLogParams:= int32(10)
    keywordsQueryLtsLogParams:= "log"
    isCountQueryLtsLogParams:= true
    request.Body = &model.QueryLtsLogParams{
        Limit: &limitQueryLtsLogParams,
        Keywords: &keywordsQueryLtsLogParams,
        IsCount: &isCountQueryLtsLogParams,
        Labels: listLabelsbody,
        EndTime: "1595659500000",
        StartTime: "1595659200000",
    }
    response, err := client.ListLogs(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- For a pagination query (Assume that the search starts from the log event containing **NO 5**. Log events containing **NO 6**, **NO 7**, and **NO 8** are the target log events):

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
```

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```
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListLogsRequest{}
    request.LogGroupId = "{log_group_id}"
    request.LogStreamId = "{log_stream_id}"
    var listLabelsbody = map[string]string{
        "hostName": "ecs-kwxtest",
    }
    limitQueryLtsLogParams:= int32(3)
    searchTypeQueryLtsLogParams:= model.GetQueryLtsLogParamsSearchTypeEnum().FORWARDS
    isDescQueryLtsLogParams:= false
    lineNumQueryLtsLogParams:= "1595659490239433658"
    keywordsQueryLtsLogParams:= "log"
    isCountQueryLtsLogParams:= true
    request.Body = &model.QueryLtsLogParams{
        Limit: &limitQueryLtsLogParams,
        SearchType: &searchTypeQueryLtsLogParams,
        IsDesc: &isDescQueryLtsLogParams,
        LineNum: &lineNumQueryLtsLogParams,
        Keywords: &keywordsQueryLtsLogParams,
        IsCount: &isCountQueryLtsLogParams,
        Labels: listLabelsbody,
        EndTime: "1595659500000",
        StartTime: "1595659200000",
    }
    response, err := client.ListLogs(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- For a pagination query (Assume that the search starts from the log event containing **NO 5**. Log events containing **NO 8**, **NO 7**, and **NO 6** are the target log events):

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
```

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```
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListLogsRequest{}
    request.LogGroupId = "{log_group_id}"
    request.LogStreamId = "{log_stream_id}"
    var listLabelsbody = map[string]string{
        "hostName": "ecs-kwxtest",
    }
    limitQueryLtsLogParams:= int32(3)
    searchTypeQueryLtsLogParams:= model.GetQueryLtsLogParamsSearchTypeEnum().FORWARDS
    isDescQueryLtsLogParams:= true
    lineNumQueryLtsLogParams:= "1595659490239433658"
    keywordsQueryLtsLogParams:= "log"
    isCountQueryLtsLogParams:= true
    request.Body = &model.QueryLtsLogParams{
        Limit: &limitQueryLtsLogParams,
        SearchType: &searchTypeQueryLtsLogParams,
        IsDesc: &isDescQueryLtsLogParams,
        LineNum: &lineNumQueryLtsLogParams,
        Keywords: &keywordsQueryLtsLogParams,
        IsCount: &isCountQueryLtsLogParams,
        Labels: listLabelsbody,
        EndTime: "1595659500000",
        StartTime: "1595659200000",
    }
    response, err := client.ListLogs(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- For a pagination query (Assume that the search starts from the log event containing **NO 5**. Log events containing **NO 2**, **NO 3**, and **NO 4** are the target log events):

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
```

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```
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListLogsRequest{}
    request.LogGroupId = "{log_group_id}"
    request.LogStreamId = "{log_stream_id}"
    var listLabelsbody = map[string]string{
        "hostName": "ecs-kwxtest",
    }
    limitQueryLtsLogParams:= int32(3)
    searchTypeQueryLtsLogParams:= model.GetQueryLtsLogParamsSearchTypeEnum().BACKWARDS
    isDescQueryLtsLogParams:= false
    lineNumQueryLtsLogParams:= "1595659490239433658"
    keywordsQueryLtsLogParams:= "log"
    isCountQueryLtsLogParams:= true
    request.Body = &model.QueryLtsLogParams{
        Limit: &limitQueryLtsLogParams,
        SearchType: &searchTypeQueryLtsLogParams,
        IsDesc: &isDescQueryLtsLogParams,
        LineNum: &lineNumQueryLtsLogParams,
        Keywords: &keywordsQueryLtsLogParams,
        IsCount: &isCountQueryLtsLogParams,
        Labels: listLabelsbody,
        EndTime: "1595659500000",
        StartTime: "1595659200000",
    }
    response, err := client.ListLogs(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- For a pagination query (Assume that the search starts from the log event containing **NO 5**. Log events containing **NO 4**, **NO 3**, and **NO 2** are the target log events):

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"
```

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```
    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListLogsRequest{}
    request.LogGroupId = "{log_group_id}"
    request.LogStreamId = "{log_stream_id}"
    var listLabelsbody = map[string]string{
        "hostName": "ecs-kwxtest",
    }
    limitQueryLtsLogParams:= int32(3)
    searchTypeQueryLtsLogParams:= model.GetQueryLtsLogParamsSearchTypeEnum().BACKWARDS
    isDescQueryLtsLogParams:= true
    lineNumQueryLtsLogParams:= "1595659490239433658"
    keywordsQueryLtsLogParams:= "log"
    isCountQueryLtsLogParams:= true
    request.Body = &model.QueryLtsLogParams{
        Limit: &limitQueryLtsLogParams,
        SearchType: &searchTypeQueryLtsLogParams,
        IsDesc: &isDescQueryLtsLogParams,
        LineNum: &lineNumQueryLtsLogParams,
        Keywords: &keywordsQueryLtsLogParams,
        IsCount: &isCountQueryLtsLogParams,
        Labels: listLabelsbody,
        EndTime: "1595659500000",
        StartTime: "1595659200000",
    }
    response, err := client.ListLogs(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- Analyze the statement query example.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()
```

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```
    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListLogsRequest{}
    request.LogGroupId = "{log_group_id}"
    request.LogStreamId = "{log_stream_id}"
    isAnalysisQueryQueryLtsLogParams:= true
    queryQueryLtsLogParams:= "* | select field1,field2 from log"
    request.Body = &model.QueryLtsLogParams{
        IsAnalysisQuery: &isAnalysisQueryQueryLtsLogParams,
        Query: &queryQueryLtsLogParams,
        EndTime: "1722327932801",
        StartTime: "1722324332801",
    }
    response, err := client.ListLogs(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The request is successful.
400	Invalid request or query statement. Modify the request based on the description in **error_msg** before a retry.
401	Authentication failed. Check the token and try again.
403	Request rejected. The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.4.4 Querying Structured Logs (Not Recommended)

Function

This API is used to query structured logs in a specified log stream.

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Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/groups/{log_group_id}/streams/{log_stream_id}/struct-content/query

Table 6-157 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**
log_group_id	Yes	String	Log group ID. For details about how to obtain a log group ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **36** Maximum: **36**
log_stream_id	Yes	String	Log stream ID. For details about how to obtain a log stream ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **36** Maximum: **36**

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Request Parameters

Table 6-158 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-159 Request body parameters

Parameter	Mandatory	Type	Description
start_time	Yes	String	UTC start time of the search window (in milliseconds).
end_time	Yes	String	UTC end time of the search window (in milliseconds).
sql_expression	No	String	SQL statement used for search. **GROUP BY**, **LIKE**, **WHERE**, and **SELECT** are supported. The default value is SELECT *. Minimum: **0** Maximum: **100**

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Parameter	Mandatory	Type	Description
original_content	No	Boolean	Whether raw logs are returned. The default value is **false**. Enumeration values: • **false**

Response Parameters

Status code: 200

Table 6-160 Response body parameters

Parameter	Type	Description
struct_logs	Array of **StructLogContents** objects	Log information.

Table 6-161 StructLogContents

Parameter	Type	Description
log_content	String	Raw log data. Minimum: **1** Maximum: **10000**
line_num	String	Sequence number of a log line. Minimum: **19** Maximum: **19**

Status code: 400

Table 6-162 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 401

Table 6-163 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 403

Table 6-164 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

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Table 6-165 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

- Querying structured logs

  ```
  POST https://{endpoint}/v2/{project_id}/groups/{log_group_id}/streams/{log_stream_id}/struct-content/query
  ```

- When **sql_expression** is set to select *:

  ```
  v2/{project_id}/groups/{log_group_id}/streams/{log_stream_id}/struct-content/query

  {
    "start_time" : "1595811590539",
    "end_time" : "1595811593539",
    "original_content" : "true",
    "sql_expression" : "select *"
  }
  ```

- When **sql_expression** is set to **select count(test3), sum(test4)**:

  ```
  {
    "start_time" : "1595811590539",
    "end_time" : "1595811593539",
    "sql_expression" : "select count(test3), sum(test4)"
  }
  ```

- When **sql_expression** is set to **select count(test3), sum(test4) group by(test1)**:

  ```
  {
    "start_time" : "1595811590539",
    "end_time" : "1595811593539",
    "sql_expression" : "select count(test3), sum(test4) group by(test1)"
  }
  ```

Example Responses

Status code: 200

The request is successful.

- When **sql_expression** is set to select *:

  ```
  {
    "struct_logs" : [ {
      "test4" : "151687",
      "test2" : "08:59:53",
      "test3" : "this",
  ```

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```
    "line_num" : "1595811593539371695",
    "log_content" : "2020-07-27/08:59:53 this log is Error NO 151687",
    "test1" : "2020-07-27"
  }, {
    "test4" : "151686",
    "test2" : "08:59:52",
    "test3" : "this",
    "line_num" : "1595811592539361171",
    "log_content" : "2020-07-27/08:59:52 this log is Error NO 151686",
    "test1" : "2020-07-27"
  }, {
    "test4" : "151685",
    "test2" : "08:59:51",
    "test3" : "this",
    "line_num" : "1595811591539422860",
    "log_content" : "2020-07-27/08:59:51 this log is Error NO 151685",
    "test1" : "2020-07-27"
  }, {
    "test4" : "151684",
    "test2" : "08:59:50",
    "test3" : "this",
    "line_num" : "1595811590539454127",
    "log_content" : "2020-07-27/08:59:50 this log is Error NO 151684",
    "test1" : "2020-07-27"
  } ]
}
```

- When **sql_expression** is set to **select count(test3), sum(test4)**:

```
{
  "struct_logs" : [ {
    "cnt(test3)" : "4",
    "sum(test4)" : "606742.000"
  } ]
}
```

- When **sql_expression** is set to **select count(test3), sum(test4) group by(test1)**:

```
{
  "struct_logs" : [ {
    "cnt(test3)" : "4",
    "sum(test4)" : "606742.000",
    "test1" : "2020-07-27"
  } ]
}
```

- When **sql_expression** is set to **select count(test3), sum(test4) group by(test1)**:

```
{
  "struct_logs" : [ {
    "cnt(test3)" : "4",
    "sum(test4)" : "606742.000",
    "test1" : "2020-07-27"
  } ]
}
```

Status code: 400

Bad Request: The request is invalid. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.0009",
  "error_msg" : "Failed to validate the request body"
}
```

Status code: 401

AuthFailed. Authentication failed. Check the token and try again.

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```
{
  "error_code" : "LTS.0414",
  "error_msg" : "Invalid token"
}
```

Status code: 403

Forbidden.The request has been rejected.The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.

```
{
  "error_code" : "LTS.0001",
  "error_msg" : "Invalid projectId"
}
```

Status code: 500

InternalServerError.

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0202",
  "error_msg" : "Failed to query lts struct log"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

- When **sql_expression** is set to select *:

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class ListQueryStructuredLogsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
```

```
            .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
            .build();
        ListQueryStructuredLogsRequest request = new ListQueryStructuredLogsRequest();
        request.withLogGroupId("{log_group_id}");
        request.withLogStreamId("{log_stream_id}");
        QueryLtsStructLogParams body = new QueryLtsStructLogParams();
        body.withOriginalContent(true);
        body.withSqlExpression("select *");
        body.withEndTime("1595811593539");
        body.withStartTime("1595811590539");
        request.withBody(body);
        try {
            ListQueryStructuredLogsResponse response = client.listQueryStructuredLogs(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- When **sql_expression** is set to **select count(test3), sum(test4)**:

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class ListQueryStructuredLogsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListQueryStructuredLogsRequest request = new ListQueryStructuredLogsRequest();
        request.withLogGroupId("{log_group_id}");
        request.withLogStreamId("{log_stream_id}");
        QueryLtsStructLogParams body = new QueryLtsStructLogParams();
        body.withSqlExpression("select count(test3), sum(test4)");
        body.withEndTime("1595811593539");
        body.withStartTime("1595811590539");
```

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```
        request.withBody(body);
        try {
            ListQueryStructuredLogsResponse response = client.listQueryStructuredLogs(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- When **sql_expression** is set to **select count(test3), sum(test4) group by(test1)**:

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class ListQueryStructuredLogsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListQueryStructuredLogsRequest request = new ListQueryStructuredLogsRequest();
        request.withLogGroupId("{log_group_id}");
        request.withLogStreamId("{log_stream_id}");
        QueryLtsStructLogParams body = new QueryLtsStructLogParams();
        body.withSqlExpression("select count(test3), sum(test4) group by(test1)");
        body.withEndTime("1595811593539");
        body.withStartTime("1595811590539");
        request.withBody(body);
        try {
            ListQueryStructuredLogsResponse response = client.listQueryStructuredLogs(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
```

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```
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

- When **sql_expression** is set to select *:

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListQueryStructuredLogsRequest()
        request.log_group_id = "{log_group_id}"
        request.log_stream_id = "{log_stream_id}"
        request.body = QueryLtsStructLogParams(
            original_content=True,
            sql_expression="select *",
            end_time="1595811593539",
            start_time="1595811590539"
        )
        response = client.list_query_structured_logs(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- When **sql_expression** is set to **select count(test3), sum(test4)**:

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
```

```
environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListQueryStructuredLogsRequest()
        request.log_group_id = "{log_group_id}"
        request.log_stream_id = "{log_stream_id}"
        request.body = QueryLtsStructLogParams(
            sql_expression="select count(test3), sum(test4)",
            end_time="1595811593539",
            start_time="1595811590539"
        )
        response = client.list_query_structured_logs(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- When **sql_expression** is set to **select count(test3), sum(test4) group by(test1)**:

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListQueryStructuredLogsRequest()
        request.log_group_id = "{log_group_id}"
        request.log_stream_id = "{log_stream_id}"
        request.body = QueryLtsStructLogParams(
            sql_expression="select count(test3), sum(test4) group by(test1)",
            end_time="1595811593539",
            start_time="1595811590539"
        )
```

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```
        response = client.list_query_structured_logs(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

- When **sql_expression** is set to select *:

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListQueryStructuredLogsRequest{}
    request.LogGroupId = "{log_group_id}"
    request.LogStreamId = "{log_stream_id}"
    originalContentQueryLtsStructLogParams:= true
    sqlExpressionQueryLtsStructLogParams:= "select *"
    request.Body = &model.QueryLtsStructLogParams{
        OriginalContent: &originalContentQueryLtsStructLogParams,
        SqlExpression: &sqlExpressionQueryLtsStructLogParams,
        EndTime: "1595811593539",
        StartTime: "1595811590539",
    }
    response, err := client.ListQueryStructuredLogs(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- When **sql_expression** is set to **select count(test3), sum(test4)**:

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
```

```
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListQueryStructuredLogsRequest{}
    request.LogGroupId = "{log_group_id}"
    request.LogStreamId = "{log_stream_id}"
    sqlExpressionQueryLtsStructLogParams:= "select count(test3), sum(test4)"
    request.Body = &model.QueryLtsStructLogParams{
        SqlExpression: &sqlExpressionQueryLtsStructLogParams,
        EndTime: "1595811593539",
        StartTime: "1595811590539",
    }
    response, err := client.ListQueryStructuredLogs(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- When **sql_expression** is set to **select count(test3), sum(test4) group by(test1)**:

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
```

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```
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListQueryStructuredLogsRequest{}
    request.LogGroupId = "{log_group_id}"
    request.LogStreamId = "{log_stream_id}"
    sqlExpressionQueryLtsStructLogParams:= "select count(test3), sum(test4) group by(test1)"
    request.Body = &model.QueryLtsStructLogParams{
        SqlExpression: &sqlExpressionQueryLtsStructLogParams,
        EndTime: "1595811593539",
        StartTime: "1595811590539",
    }
    response, err := client.ListQueryStructuredLogs(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The request is successful.
400	Bad Request: The request is invalid. Modify the request based on the description in **error_msg** before a retry.
401	AuthFailed. Authentication failed. Check the token and try again.
403	Forbidden.The request has been rejected.The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.
500	InternalServerError. The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

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6.4.5 Querying Structured Logs (Log Analysis)

Function

This API is used to use SQL statements to query structured logs in a specified log stream (**Log Analysis** tab page).

NOTE

For details about the regions that support the query function on the **Log Analysis** tab page, see section "Log Visualization" in the *User Guide*. The number of data aggregation results does not exceed 10 billion. Only data generated in the last 30 days can be analyzed using SQL statements.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/streams/{log_stream_id}/struct-content/query

Table 6-166 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A
log_stream_id	Yes	String	**Definition** Log stream ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Request Parameters

Table 6-167 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints:** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-168 Request body parameters

Parameter	Mandatory	Type	Description
query	Yes	String	**Definition** Analysis statement. For more information, see **SQL Functions**. For example, **select time_ceil(__time,'PT1M') as t, count(*) as pv group by t** is used to analyze the number of log lines per minute in the query time range. **Constraints** N/A **Range** N/A **Default Value** N/A
format	Yes	String	**Definition** Format of the returned query results. **Constraints** N/A **Range** k-v **Default Value** k-v
time_range	Yes	**TimeRange** object	**Definition** Time range for querying logs. **Constraints** The end time must be later than the start time. The maximum time range is 30 days. If you specify a time range that exceeds the log retention period set for the log stream, the intersection of the time range and the log retention period is queried by default.

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Parameter	Mandatory	Type	Description
whether_to_rows	No	Boolean	**Definition** Whether the returned data is in the line format. **Constraints** N/A **Range** • **true**: The returned data is in line format. • **false**: The returned data is in column format. **Default Value** false

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Table 6-169 TimeRange

Parameter	Mandatory	Type	Description
sql_time_zone	No	String	**Definition** Time zone setting for a SQL statement. It is used to convert the time zone of any time-related fields or function results returned by the query. The time zone formats can be **-0800**, **-08:00**, **America/Los_Angeles**, or **UTC**. For example, **select MILLIS_TO_TIMESTAMP(0) as time** converts a timestamp in milliseconds into a time type. ● When **sql_time_zone** is set to **UTC**, the time returned is **1970-01-01T00:00:00.000Z**. ● When **sql_time_zone** is set to **+0800**, the time returned is **1970-01-01T08:00:00.000+08:00**. ● When **sql_time_zone** is set to **America/Los_Angeles**, the time returned is **1969-12-31T16:00:00.000-08:00**. **Constraints** N/A **Range** N/A **Default Value** UTC

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Parameter	Mandatory	Type	Description
start_time	Yes	Long	**Definition** Start time of a query. The value is a timestamp, measured in milliseconds from January 1, 1970, 00:00:00.000 UTC. **Constraints** N/A **Range** • The value must be greater than 0. • If the value is less than the log stream's minimum log retention period, the value will be set to that minimum log retention period by default. **Default Value** N/A
end_time	Yes	Long	**Definition** End time of a query. The value is a timestamp, measured in milliseconds from January 1, 1970, 00:00:00.000 UTC. **Constraints** N/A **Range** The value must be greater than 0. **Default Value** N/A

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Parameter	Mandatory	Type	Description
start_time_gt	No	Boolean	**Definition** Whether the query time range includes the start time. **Constraints** N/A **Range** • **true**: The time range includes the start time. • **false**: The time range does not include the start time. **Default Value** **false**
end_time_lt	No	Boolean	**Definition** Whether the query time range includes the end time. **Constraints** N/A **Range** • **true**: The time range includes the end time. • **false**: The time range does not include the end time. **Default Value** false

Response Parameters

Status code: 200

The request is successful.

Status code: 400

Table 6-170 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-171 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

- When **query** is set to select *:

```
POST https://{endpoint}/v2/{project_id}/streams/{log_stream_id}/struct-content/query

{
  "query" : "select *",
  "format" : "k-v",
  "time_range" : {
    "sql_time_zone" : "UTC",
    "start_time" : 1613806109000,
    "end_time" : 1613806110000,
    "start_time_gt" : false,
    "end_time_lt" : false
  }
}
```

- When **query** is set to **select count(test3) as mycount, sum(test4) as mysum**:

```
POST https://{endpoint}/v2/{project_id}/streams/{log_stream_id}/struct-content/query

{
  "query" : "select count(test3) as mycount, sum(test4) as mysum",
  "format" : "k-v",
  "time_range" : {
    "sql_time_zone" : "UTC",
    "start_time" : 1613806109000,
    "end_time" : 1613806110000,
    "start_time_gt" : false,
```

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```
    "end_time_lt" : false
  }
}
```

- When **query** is set to **select count(test3), sum(test4) group by(test1)**:

```
POST https://{endpoint}/v2/{project_id}/streams/{log_stream_id}/struct-content/query

{
  "query" : "select count(test3), sum(test4) group by(test1)",
  "format" : "k-v",
  "time_range" : {
    "sql_time_zone" : "UTC",
    "start_time" : 1613806109000,
    "end_time" : 1613806110000,
    "start_time_gt" : false,
    "end_time_lt" : false
  }
}
```

- When **whether_to_rows** is set to **true**:

```
POST https://{endpoint}/v2/{project_id}/streams/{log_stream_id}/struct-content/query

{
  "query" : "select count(test3), sum(test4) group by(test1)",
  "format" : "k-v",
  "time_range" : {
    "sql_time_zone" : "UTC",
    "start_time" : 1613806109000,
    "end_time" : 1613806110000,
    "start_time_gt" : false,
    "end_time_lt" : false
  },
  "whether_to_rows" : true
}
```

Example Responses

Status code: 200

The request is successful.

```
{
  "pv" : [ 90 ]
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.2022",
  "error_msg" : "Column 'aa' not found in any table"
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0010",
  "error_msg" : "Internal Server Error"
}
```

SDK Sample Code

The SDK sample code is as follows.

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Java

- When **query** is set to select *:

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class ListStructuredLogsWithTimeRangeSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListStructuredLogsWithTimeRangeRequest request = new ListStructuredLogsWithTimeRangeRequest();
        request.withLogStreamId("{log_stream_id}");
        QueryLtsStructLogParamsNew body = new QueryLtsStructLogParamsNew();
        TimeRange timeRangebody = new TimeRange();
        timeRangebody.withSqlTimeZone("UTC")
            .withStartTime(1613806109000L)
            .withEndTime(1613806110000L)
            .withStartTimeGt(false)
            .withEndTimeLt(false);
        body.withTimeRange(timeRangebody);
        body.withFormat("k-v");
        body.withQuery("select *");
        request.withBody(body);
        try {
            ListStructuredLogsWithTimeRangeResponse response = client.listStructuredLogsWithTimeRange(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

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- When **query** is set to **select count(test3) as mycount, sum(test4) as mysum**:

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class ListStructuredLogsWithTimeRangeSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListStructuredLogsWithTimeRangeRequest request = new ListStructuredLogsWithTimeRangeRequest();
        request.withLogStreamId("{log_stream_id}");
        QueryLtsStructLogParamsNew body = new QueryLtsStructLogParamsNew();
        TimeRange timeRangebody = new TimeRange();
        timeRangebody.withSqlTimeZone("UTC")
            .withStartTime(1613806109000L)
            .withEndTime(1613806110000L)
            .withStartTimeGt(false)
            .withEndTimeLt(false);
        body.withTimeRange(timeRangebody);
        body.withFormat("k-v");
        body.withQuery("select count(test3) as mycount, sum(test4) as mysum");
        request.withBody(body);
        try {
            ListStructuredLogsWithTimeRangeResponse response = client.listStructuredLogsWithTimeRange(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- When **query** is set to **select count(test3), sum(test4) group by(test1)**:

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```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class ListStructuredLogsWithTimeRangeSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListStructuredLogsWithTimeRangeRequest request = new ListStructuredLogsWithTimeRangeRequest();
        request.withLogStreamId("{log_stream_id}");
        QueryLtsStructLogParamsNew body = new QueryLtsStructLogParamsNew();
        TimeRange timeRangebody = new TimeRange();
        timeRangebody.withSqlTimeZone("UTC")
            .withStartTime(1613806109000L)
            .withEndTime(1613806110000L)
            .withStartTimeGt(false)
            .withEndTimeLt(false);
        body.withTimeRange(timeRangebody);
        body.withFormat("k-v");
        body.withQuery("select count(test3), sum(test4) group by(test1)");
        request.withBody(body);
        try {
            ListStructuredLogsWithTimeRangeResponse response = client.listStructuredLogsWithTimeRange(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- When **whether_to_rows** is set to **true**:

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
```

```
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class ListStructuredLogsWithTimeRangeSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListStructuredLogsWithTimeRangeRequest request = new ListStructuredLogsWithTimeRangeRequest();
        request.withLogStreamId("{log_stream_id}");
        QueryLtsStructLogParamsNew body = new QueryLtsStructLogParamsNew();
        TimeRange timeRangebody = new TimeRange();
        timeRangebody.withSqlTimeZone("UTC")
            .withStartTime(1613806109000L)
            .withEndTime(1613806110000L)
            .withStartTimeGt(false)
            .withEndTimeLt(false);
        body.withWhetherToRows(true);
        body.withTimeRange(timeRangebody);
        body.withFormat("k-v");
        body.withQuery("select count(test3), sum(test4) group by(test1)");
        request.withBody(body);
        try {
            ListStructuredLogsWithTimeRangeResponse response = client.listStructuredLogsWithTimeRange(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

- When **query** is set to select *:

```
# coding: utf-8
```

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```
import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListStructuredLogsWithTimeRangeRequest()
        request.log_stream_id = "{log_stream_id}"
        timeRangebody = TimeRange(
            sql_time_zone="UTC",
            start_time=1613806109000,
            end_time=1613806110000,
            start_time_gt=False,
            end_time_lt=False
        )
        request.body = QueryLtsStructLogParamsNew(
            time_range=timeRangebody,
            format="k-v",
            query="select *"
        )
        response = client.list_structured_logs_with_time_range(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- When **query** is set to **select count(test3) as mycount, sum(test4) as mysum**:

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)
```

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```
client = LtsClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(LtsRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = ListStructuredLogsWithTimeRangeRequest()
    request.log_stream_id = "{log_stream_id}"
    timeRangebody = TimeRange(
        sql_time_zone="UTC",
        start_time=1613806109000,
        end_time=1613806110000,
        start_time_gt=False,
        end_time_lt=False
    )
    request.body = QueryLtsStructLogParamsNew(
        time_range=timeRangebody,
        format="k-v",
        query="select count(test3) as mycount, sum(test4) as mysum"
    )
    response = client.list_structured_logs_with_time_range(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

- When **query** is set to **select count(test3), sum(test4) group by(test1)**:

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListStructuredLogsWithTimeRangeRequest()
        request.log_stream_id = "{log_stream_id}"
        timeRangebody = TimeRange(
            sql_time_zone="UTC",
            start_time=1613806109000,
            end_time=1613806110000,
            start_time_gt=False,
            end_time_lt=False
        )
        request.body = QueryLtsStructLogParamsNew(
            time_range=timeRangebody,
            format="k-v",
            query="select count(test3), sum(test4) group by(test1)"
```

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```
        )
        response = client.list_structured_logs_with_time_range(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- When **whether_to_rows** is set to **true**:

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListStructuredLogsWithTimeRangeRequest()
        request.log_stream_id = "{log_stream_id}"
        timeRangebody = TimeRange(
            sql_time_zone="UTC",
            start_time=1613806109000,
            end_time=1613806110000,
            start_time_gt=False,
            end_time_lt=False
        )
        request.body = QueryLtsStructLogParamsNew(
            whether_to_rows=True,
            time_range=timeRangebody,
            format="k-v",
            query="select count(test3), sum(test4) group by(test1)"
        )
        response = client.list_structured_logs_with_time_range(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

- When **query** is set to select *:

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
```

```
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListStructuredLogsWithTimeRangeRequest{}
    request.LogStreamId = "{log_stream_id}"
    sqlTimeZoneTimeRange:= "UTC"
    startTimeGtTimeRange:= false
    endTimeLtTimeRange:= false
    timeRangebody := &model.TimeRange{
        SqlTimeZone: &sqlTimeZoneTimeRange,
        StartTime: int64(1613806109000),
        EndTime: int64(1613806110000),
        StartTimeGt: &startTimeGtTimeRange,
        EndTimeLt: &endTimeLtTimeRange,
    }
    request.Body = &model.QueryLtsStructLogParamsNew{
        TimeRange: timeRangebody,
        Format: "k-v",
        Query: "select *",
    }
    response, err := client.ListStructuredLogsWithTimeRange(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- When **query** is set to **select count(test3) as mycount, sum(test4) as mysum**:

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
```

```
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListStructuredLogsWithTimeRangeRequest{}
    request.LogStreamId = "{log_stream_id}"
    sqlTimeZoneTimeRange:= "UTC"
    startTimeGtTimeRange:= false
    endTimeLtTimeRange:= false
    timeRangebody := &model.TimeRange{
        SqlTimeZone: &sqlTimeZoneTimeRange,
        StartTime: int64(1613806109000),
        EndTime: int64(1613806110000),
        StartTimeGt: &startTimeGtTimeRange,
        EndTimeLt: &endTimeLtTimeRange,
    }
    request.Body = &model.QueryLtsStructLogParamsNew{
        TimeRange: timeRangebody,
        Format: "k-v",
        Query: "select count(test3) as mycount, sum(test4) as mysum",
    }
    response, err := client.ListStructuredLogsWithTimeRange(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- When **query** is set to **select count(test3), sum(test4) group by(test1)**:

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()
```

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```
    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListStructuredLogsWithTimeRangeRequest{}
    request.LogStreamId = "{log_stream_id}"
    sqlTimeZoneTimeRange:= "UTC"
    startTimeGtTimeRange:= false
    endTimeLtTimeRange:= false
    timeRangebody := &model.TimeRange{
        SqlTimeZone: &sqlTimeZoneTimeRange,
        StartTime: int64(1613806109000),
        EndTime: int64(1613806110000),
        StartTimeGt: &startTimeGtTimeRange,
        EndTimeLt: &endTimeLtTimeRange,
    }
    request.Body = &model.QueryLtsStructLogParamsNew{
        TimeRange: timeRangebody,
        Format: "k-v",
        Query: "select count(test3), sum(test4) group by(test1)",
    }
    response, err := client.ListStructuredLogsWithTimeRange(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- When **whether_to_rows** is set to **true**:

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListStructuredLogsWithTimeRangeRequest{}
    request.LogStreamId = "{log_stream_id}"
    sqlTimeZoneTimeRange:= "UTC"
    startTimeGtTimeRange:= false
```

```
    endTimeLtTimeRange:= false
    timeRangebody := &model.TimeRange{
        SqlTimeZone: &sqlTimeZoneTimeRange,
        StartTime: int64(1613806109000),
        EndTime: int64(1613806110000),
        StartTimeGt: &startTimeGtTimeRange,
        EndTimeLt: &endTimeLtTimeRange,
    }
    whetherToRowsQueryLtsStructLogParamsNew:= true
    request.Body = &model.QueryLtsStructLogParamsNew{
        WhetherToRows: &whetherToRowsQueryLtsStructLogParamsNew,
        TimeRange: timeRangebody,
        Format: "k-v",
        Query: "select count(test3), sum(test4) group by(test1)",
    }
    response, err := client.ListStructuredLogsWithTimeRange(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The request is successful.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.4.6 Querying the Log Histogram

Function

This API is used to query the number of logs that contain a specified keyword. It helps you query and collect statistics on logs in a specified period, including the number of logs that contain the keyword and the reporting details of each log.

Calling Method

For details, see **Calling APIs**.

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URI

POST /v2/{project_id}/lts/keyword-count

Table 6-172 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-173 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints:** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-174 Request body parameters

Parameter	Mandatory	Type	Description
start_time	Yes	String	**Definition** Start time for searching for logs by time range. Log time refers to the time when a log is written. The time range between **start_time** and **end_time** includes both the start time and end time. **Constraints** • The maximum time range for a query is 180 days. • The values of **start_time** and **end_time** must be different. **Range** The value must be a timestamp, measured in milliseconds from January 1, 1970, 00:00:00 UTC. **Default Value** N/A

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Parameter	Mandatory	Type	Description
end_time	Yes	String	**Definition** End time for searching for logs by time range. Log time refers to the time when a log is written. The time range between **start_time** and **end_time** includes both the start time and end time. **Constraints** • The maximum time range for a query is 180 days. • The values of **start_time** and **end_time** must be different. **Range** The value must be a timestamp, measured in milliseconds from January 1, 1970, 00:00:00 UTC. **Default Value** N/A
step_interval	Yes	Long	**Definition** Time step, in milliseconds. Recommended formula: (**end_time** – **start_time**)/ 1,000 x 1,000/60, where /1,000 x 1,000 means rounding to an integer. **Constraints** If the calculated result is less than or equal to 1,000, the value 1,000 is used. **Range** Minimum value: **1000** **Default Value** N/A

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Parameter	Mandatory	Type	Description
group_id	Yes	String	**Definition** Log group ID. **Constraints:** N/A **Range** N/A **Default Value** N/A
stream_id	Yes	String	**Definition** Log stream ID. **Constraints:** N/A **Range** N/A **Default Value** N/A
key_word	Yes	String	**Definition** Keyword used for log search. A keyword is a word between two adjacent delimiters. Example: **error** **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
is_iterative	No	Boolean	**Definition** Whether to enable the log iterative query function. **Constraints** N/A **Range** • **true**: enables iterative query, returning query results in batches. This mode is applicable for querying a large volume of log data. • **false**: disables iterative query, returning all query results in a single response. This mode is suitable for a small volume of logs. **Default Value** false

Response Parameters

Status code: 200

Table 6-175 Response body parameters

Parameter	Type	Description
count	Long	**Definition** Number of log events. **Range** N/A
histogram	String	**Definition** Histogram result. **Range** N/A
isQueryComplete	Boolean	**Definition** Whether the query is complete. **Range** • **true**: The query is complete. • **false**: The query is not complete.

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Status code: 400

Table 6-176 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-177 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Query a log histogram.

```
POST https://{endpoint}/v2/{project_id}/lts/keyword-count

{
  "group_id" : "00330565-5baf-4e0d-bd16-ba0c6b951d9a",
  "stream_id" : "715cda3b-e17f-492a-a6ca-98a1ba16ad8c",
  "end_time" : 1637820813605,
  "start_time" : 1637817213605,
  "key_word" : "test",
  "step_interval" : 6000
}
```

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Example Responses

Status code: 200

The request for querying histogram data is successful.

```
{
  "count" : 1,
  "histogram" : [ {
    "num" : 1,
    "startTime" : 1637821594579,
    "endTime" : 1637821595000
  }, {
    "num" : 0,
    "startTime" : 1637821654000,
    "endTime" : 1637821654579
  } ]
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.0601",
  "error_msg" : "must be less than or equal to 86400000"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Query a log histogram.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class ListLogHistogramSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);
```

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```
        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListLogHistogramRequest request = new ListLogHistogramRequest();
        QueryLogKeyWordCountRequestBody body = new QueryLogKeyWordCountRequestBody();
        body.withKeyWord("test");
        body.withStreamId("715cda3b-e17f-492a-a6ca-98a1ba16ad8c");
        body.withGroupId("00330565-5baf-4e0d-bd16-ba0c6b951d9a");
        body.withStepInterval(6000L);
        body.withEndTime("1637820813605");
        body.withStartTime("1637817213605");
        request.withBody(body);
        try {
            ListLogHistogramResponse response = client.listLogHistogram(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Query a log histogram.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListLogHistogramRequest()
        request.body = QueryLogKeyWordCountRequestBody(
            key_word="test",
            stream_id="715cda3b-e17f-492a-a6ca-98a1ba16ad8c",
            group_id="00330565-5baf-4e0d-bd16-ba0c6b951d9a",
            step_interval=6000,
            end_time="1637820813605",
            start_time="1637817213605"
        )
```

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```
        response = client.list_log_histogram(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Query a log histogram.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListLogHistogramRequest{}
    request.Body = &model.QueryLogKeyWordCountRequestBody{
        KeyWord: "test",
        StreamId: "715cda3b-e17f-492a-a6ca-98a1ba16ad8c",
        GroupId: "00330565-5baf-4e0d-bd16-ba0c6b951d9a",
        StepInterval: int64(6000),
        EndTime: "1637820813605",
        StartTime: "1637817213605",
    }
    response, err := client.ListLogHistogram(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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Status Codes

Status Code	Description
200	The request for querying histogram data is successful.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.4.7 Querying Context Logs

Function

This API is used to query logs before and after a specified log.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/groups/{log_group_id}/streams/{log_stream_id}/context

Table 6-178 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**
log_group_id	Yes	String	Log group ID. For details about how to obtain a log group ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **36** Maximum: **36**

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Parameter	Mandatory	Type	Description
log_stream_id	Yes	String	Log stream ID. For details about how to obtain a log stream ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **36** Maximum: **36**

Request Parameters

Table 6-179 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-180 Request body parameters

Parameter	Mandatory	Type	Description
line_num	No	String	Sequence number of a log line. The field's value is a timestamp in nanoseconds, which must be obtained from the log result.
__time__	No	String	Time field of the custom time function. The field's value is a timestamp in milliseconds, which must be obtained from the log result. If the custom time function has been enabled for cloud structuring, use this field with the **line_num** field for querying log context.
backwardsSize	No	Integer	Number of logs before the start log. The value ranges from 0 to 500, and the default value is 100. Minimum: **0** Maximum: **500**
forwardsSize	No	Integer	Number of logs after the start log. The value ranges from 0 to 500, and the default value is 100. Minimum: **0** Maximum: **500**

Response Parameters

Status code: 200

Table 6-181 Response body parameters

Parameter	Type	Description
logs	Array of **LogContents** objects	Context log information.
total_count	Integer	Total number of returned logs, including the start log specified in the request parameters.

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Parameter	Type	Description
backwards_count	Integer	Number of logs queried forward. Minimum: **0** Maximum: **500**
forwards_count	Integer	Number of logs queried backward. Minimum: **0** Maximum: **500**
isQueryComplete	Boolean	Whether the query is complete.

Table 6-182 LogContents

Parameter	Type	Description
content	String	**Definition** Raw log data. **Range** N/A
line_num	String	**Definition** Sequence number of a log line. **Range** N/A
labels	Map<String,String>	**Definition** Labels contained in a log event. The labels vary depending on log events.

Status code: 400

Table 6-183 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-184 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

- Query context logs.

```
POST https://{endpoint}/v2/{project_id}/groups/{log_group_id}/streams/{log_stream_id}/context

{
  "line_num" : "1725154216000000000",
  "backwardsSize" : 100,
  "forwardsSize" : 100
}
```

- Query context logs and enable the custom time function for cloud structuring.

```
POST https://{endpoint}/v2/{project_id}/groups/{log_group_id}/streams/{log_stream_id}/context

{
  "line_num" : "1725154216000000000",
  "__time__" : "1725154216000",
  "backwardsSize" : 100,
  "forwardsSize" : 100
}
```

Example Responses

Status code: 200

Response to the request for querying context log data succeeded.

```
{
  "total_count" : 3,
```

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```
 "backwards_count" : 1,
 "forwards_count" : 2,
 "logs" : [ {
   "content" : "2024-09-01/09:30:00 this log is Error NO 1",
   "labels" : {
     "appName" : "default_appname",
     "containerName" : "CONFIG_FILE",
     "clusterName" : "CONFIG_FILE",
     "podName" : "default_procname",
     "clusterId" : "CONFIG_FILE",
     "nameSpace" : "CONFIG_FILE",
     "category" : "LTS"
   },
   "line_num" : "17251542150000000000"
 }, {
   "content" : "2024-09-01/09:30:01 this log is Error NO 1",
   "labels" : {
     "appName" : "default_appname",
     "containerName" : "CONFIG_FILE",
     "clusterName" : "CONFIG_FILE",
     "podName" : "default_procname",
     "clusterId" : "CONFIG_FILE",
     "nameSpace" : "CONFIG_FILE",
     "category" : "LTS"
   },
   "line_num" : "17251542160000000000"
 }, {
   "content" : "2024-09-01/09:30:02 this log is Error NO 1",
   "labels" : {
     "appName" : "default_appname",
     "containerName" : "CONFIG_FILE",
     "clusterName" : "CONFIG_FILE",
     "podName" : "default_procname",
     "clusterId" : "CONFIG_FILE",
     "nameSpace" : "CONFIG_FILE",
     "category" : "LTS"
   },
   "line_num" : "17251542170000000000"
 } ]
}
```


Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.


```
{
  "error_code" : "LTS.0009",
  "error_msg" : "Failed to validate the request body"
}
```


SDK Sample Code

The SDK sample code is as follows.

Java

- Query context logs.

  ```
  package com.huaweicloud.sdk.test;

  import com.huaweicloud.sdk.core.auth.ICredential;
  import com.huaweicloud.sdk.core.auth.BasicCredentials;
  import com.huaweicloud.sdk.core.exception.ConnectionException;
  import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
  import com.huaweicloud.sdk.core.exception.ServiceResponseException;
  import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
  import com.huaweicloud.sdk.lts.v2.*;
  ```

```
import com.huaweicloud.sdk.lts.v2.model.*;


public class ListLogContextSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListLogContextRequest request = new ListLogContextRequest();
        request.withLogGroupId("{log_group_id}");
        request.withLogStreamId("{log_stream_id}");
        ListLogContextRequestBody body = new ListLogContextRequestBody();
        body.withForwardsSize(100);
        body.withBackwardsSize(100);
        body.withLineNum("1725154216000000000");
        request.withBody(body);
        try {
            ListLogContextResponse response = client.listLogContext(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- Query context logs and enable the custom time function for cloud structuring.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class ListLogContextSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
```

```
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListLogContextRequest request = new ListLogContextRequest();
        request.withLogGroupId("{log_group_id}");
        request.withLogStreamId("{log_stream_id}");
        ListLogContextRequestBody body = new ListLogContextRequestBody();
        body.withForwardsSize(100);
        body.withBackwardsSize(100);
        body.withTime("1725154216000");
        body.withLineNum("1725154216000000000");
        request.withBody(body);
        try {
            ListLogContextResponse response = client.listLogContext(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

- Query context logs.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()
```

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```
    try:
        request = ListLogContextRequest()
        request.log_group_id = "{log_group_id}"
        request.log_stream_id = "{log_stream_id}"
        request.body = ListLogContextRequestBody(
            forwards_size=100,
            backwards_size=100,
            line_num="1725154216000000000"
        )
        response = client.list_log_context(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- Query context logs and enable the custom time function for cloud structuring.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListLogContextRequest()
        request.log_group_id = "{log_group_id}"
        request.log_stream_id = "{log_stream_id}"
        request.body = ListLogContextRequestBody(
            forwards_size=100,
            backwards_size=100,
            time__="1725154216000",
            line_num="1725154216000000000"
        )
        response = client.list_log_context(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

- Query context logs.

```
package main

import (
```

```
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListLogContextRequest{}
    request.LogGroupId = "{log_group_id}"
    request.LogStreamId = "{log_stream_id}"
    forwardsSizeListLogContextRequestBody:= int32(100)
    backwardsSizeListLogContextRequestBody:= int32(100)
    lineNumListLogContextRequestBody:= "1725154216000000000"
    request.Body = &model.ListLogContextRequestBody{
        ForwardsSize: &forwardsSizeListLogContextRequestBody,
        BackwardsSize: &backwardsSizeListLogContextRequestBody,
        LineNum: &lineNumListLogContextRequestBody,
    }
    response, err := client.ListLogContext(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- Query context logs and enable the custom time function for cloud structuring.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"
```

```
    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListLogContextRequest{}
    request.LogGroupId = "{log_group_id}"
    request.LogStreamId = "{log_stream_id}"
    forwardsSizeListLogContextRequestBody:= int32(100)
    backwardsSizeListLogContextRequestBody:= int32(100)
    timeListLogContextRequestBody:= "1725154216000"
    lineNumListLogContextRequestBody:= "1725154216000000000"
    request.Body = &model.ListLogContextRequestBody{
        ForwardsSize: &forwardsSizeListLogContextRequestBody,
        BackwardsSize: &backwardsSizeListLogContextRequestBody,
        Time: &timeListLogContextRequestBody,
        LineNum: &lineNumListLogContextRequestBody,
    }
    response, err := client.ListLogContext(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Response to the request for querying context log data succeeded.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	InternalServerError. The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

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6.4.8 Removing from Favorites

Function

Remove a log stream from favorites.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v1.0/{project_id}/lts/favorite/{fav_res_id}

Table 6-185 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**
fav_res_id	Yes	String	ID of the favorited resource.

Request Parameters

Table 6-186 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

Removed from favorites.

Status code: 400

Table 6-187 Response body parameters

Parameter	Type	Description
message	**ErrorMessagebody** object	**Definition** Error details.

Table 6-188 ErrorMessagebody

Parameter	Type	Description
code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
details	String	**Definition** Error message. **Range** N/A

Status code: 500

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Table 6-189 Response body parameters

Parameter	Type	Description
message	**ErrorMessagebody** object	**Definition** Error details.

Table 6-190 ErrorMessagebody

Parameter	Type	Description
code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
details	String	**Definition** Error message. **Range** N/A

Example Requests

Remove a log stream from favorites.

```
/v1.0/{project_id}/lts/favorite/{fav_res_id}
```

Example Responses

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "message" : {
    "code" : "LTS.0009",
    "details" : "update favorite failed"
  }
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "message" : {
    "code" : "LTS.0203",
    "details" : "Internal Server Error"
  }
}
```

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SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class DeletefavoriteSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        DeletefavoriteRequest request = new DeletefavoriteRequest();
        request.withFavResId("{fav_res_id}");
        try {
            DeletefavoriteResponse response = client.deletefavorite(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *
```

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```
if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeletefavoriteRequest()
        request.fav_res_id = "{fav_res_id}"
        response = client.deletefavorite(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeletefavoriteRequest{}
    request.FavResId = "{fav_res_id}"
    response, err := client.Deletefavorite(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
```

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```
  }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Removed from favorites.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.4.9 Adding a Log Stream to Favorites

Function

Add a log stream to favorites.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1.0/{project_id}/lts/favorite

Table 6-191 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**

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Request Parameters

Table 6-192 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-193 Request body parameters

Parameter	Mandatory	Type	Description
eps_id	No	String	Enterprise project ID.
favorite_resource_id	Yes	String	Favorite resource ID.
favorite_resource_type	Yes	String	Favorite resource type.
log_group_id	Yes	String	Log group ID.
log_group_name	No	String	Log group name. If an invalid log group name is specified, the log group ID is used to favorite the log stream.

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Parameter	Mandatory	Type	Description
log_stream_id	Yes	String	Log stream ID.
log_stream_name	No	String	Log stream name. If an invalid log stream name is specified, the log stream ID is used to favorite the log stream.
is_global	Yes	Boolean	This parameter must be set to **true**. Otherwise, logs cannot be added to favorites.

Response Parameters

Status code: 201

Table 6-194 Response body parameters

Parameter	Type	Description
create_time	Integer	Creation time.
eps_id	String	Enterprise project ID.
favorite_resource_id	String	Favorite resource ID.
favorite_resource_type	String	Favorite resource type: **LOG_STREAM**.
log_group_id	String	Log group ID.
log_group_name	String	Log group name.
log_stream_id	String	Log stream ID.
log_stream_name	String	Log stream name.
project_id	String	Project ID.
is_global	Boolean	Whether to enable the function of adding logs to favorites.

Status code: 400

Table 6-195 Response body parameters

Parameter	Type	Description
message	ErrorMessagebody object	**Definition** Error details.

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Table 6-196 ErrorMessagebody

Parameter	Type	Description
code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
details	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-197 Response body parameters

Parameter	Type	Description
message	**ErrorMessagebody** object	**Definition** Error details.

Table 6-198 ErrorMessagebody

Parameter	Type	Description
code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
details	String	**Definition** Error message. **Range** N/A

Example Requests

Adding a Log to Favorites

```
/v1.0/{project_id}/lts/favorite

{
```

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```
  "log_group_id" : "d91fff37-9d10-47f1-85de-c2840724908f",
  "log_group_name" : "lts-group-sgq1",
  "log_stream_id" : "f2fb0a2d-d4cd-4bc9-ac12-93c6d255883c",
  "log_stream_name" : "lts-topic-xxxxtest",
  "eps_id" : "0",
  "favorite_resource_id" : "f2fb0a2d-d4cd-4bc9-ac12-93c6d255883c",
  "favorite_resource_type" : "log_stream",
  "is_global" : true
}
```

Example Responses

Status code: 201

A log is added to favorites.

```
{
  "create_time" : 1669018970929,
  "eps_id" : "0",
  "favorite_resource_id" : "f2fb0a2d-d4cd-4bc9-ac12-93c6d255883c",
  "is_global" : true,
  "favorite_resource_type" : "LOG_STREAM",
  "log_group_id" : "d91fff37-9d10-47f1-85de-c2840724908f",
  "log_group_name" : "lts-group-sgq1",
  "log_stream_id" : "f2fb0a2d-d4cd-4bc9-ac12-93c6d255883c",
  "log_stream_name" : "lts-topic-xxxxtest",
  "project_id" : "2a473356cca5487f8373be891bffc1cf"
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "message" : {
    "code" : "LTS.0603",
    "details" : "group or stream not exist"
  }
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "message" : {
    "code" : "LTS.0203",
    "details" : "Internal Server Error"
  }
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Adding a Log to Favorites

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
```

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```
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class CreatefavoriteSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        CreatefavoriteRequest request = new CreatefavoriteRequest();
        CreatefavoriteReqbody body = new CreatefavoriteReqbody();
        body.withIsGlobal(true);
        body.withLogStreamName("lts-topic-xxxxtest");
        body.withLogStreamId("f2fb0a2d-d4cd-4bc9-ac12-93c6d255883c");
        body.withLogGroupName("lts-group-sgq1");
        body.withLogGroupId("d91fff37-9d10-47f1-85de-c2840724908f");
        body.withFavoriteResourceType("log_stream");
        body.withFavoriteResourceId("f2fb0a2d-d4cd-4bc9-ac12-93c6d255883c");
        body.withEpsId("0");
        request.withBody(body);
        try {
            CreatefavoriteResponse response = client.createfavorite(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Adding a Log to Favorites

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
```

```
risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreatefavoriteRequest()
        request.body = CreatefavoriteReqbody(
            is_global=True,
            log_stream_name="lts-topic-xxxxtest",
            log_stream_id="f2fb0a2d-d4cd-4bc9-ac12-93c6d255883c",
            log_group_name="lts-group-sgq1",
            log_group_id="d91fff37-9d10-47f1-85de-c2840724908f",
            favorite_resource_type="log_stream",
            favorite_resource_id="f2fb0a2d-d4cd-4bc9-ac12-93c6d255883c",
            eps_id="0"
        )
        response = client.createfavorite(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Adding a Log to Favorites

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
```

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```
        Build())

    request := &model.CreatefavoriteRequest{}
    logStreamNameCreatefavoriteReqbody:= "lts-topic-xxxxtest"
    logGroupNameCreatefavoriteReqbody:= "lts-group-sgq1"
    epsIdCreatefavoriteReqbody:= "0"
    request.Body = &model.CreatefavoriteReqbody{
        IsGlobal: true,
        LogStreamName: &logStreamNameCreatefavoriteReqbody,
        LogStreamId: "f2fb0a2d-d4cd-4bc9-ac12-93c6d255883c",
        LogGroupName: &logGroupNameCreatefavoriteReqbody,
        LogGroupId: "d91fff37-9d10-47f1-85de-c2840724908f",
        FavoriteResourceType: "log_stream",
        FavoriteResourceId: "f2fb0a2d-d4cd-4bc9-ac12-93c6d255883c",
        EpsId: &epsIdCreatefavoriteReqbody,
    }
    response, err := client.Createfavorite(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
201	A log is added to favorites.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.5 Log Ingestion

6.5.1 Creating a cross-account log ingestion configuration.

Function

Creating a cross-account log ingestion configuration.

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Calling Method

For details, see **Calling APIs**.

URI

POST /v2.0/{project_id}/lts/createAgencyAccess

Table 6-199 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **1** Maximum: **64**

Request Parameters

Table 6-200 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-201 Request body parameters

Parameter	Mandatory	Type	Description
preview_agency_list	Yes	Array of **PreviewAgencyLogAccessReqBody** objects	Preview of the proxy list.

Table 6-202 PreviewAgencyLogAccessReqBody

Parameter	Mandatory	Type	Description
agency_access_type	Yes	String	Log ingestion type. Enumeration values: • **AGENCYACCESS**
agency_log_access	Yes	String	Cross-account log ingestion configuration name. The value can contain a maximum of 64 characters.
log_agencyStream_name	Yes	String	Delegator log stream name.
log_agencyStream_id	Yes	String	Delegator log stream ID.
log_agencyGroup_name	Yes	String	Delegator log group name.
log_agencyGroup_id	Yes	String	Delegator log group ID.

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Parameter	Mandatory	Type	Description
log_beAgency stream_name	Yes	String	Delegatee log stream name.
log_beAgency stream_id	Yes	String	Delegatee log stream ID.
log_beAgency group_name	Yes	String	Delegatee log group name.
log_beAgency group_id	Yes	String	Delegatee log group ID.
be_agency_project_id	Yes	String	Delegatee project ID.
agency_project_id	Yes	String	Delegator project ID.
agency_domain_name	Yes	String	Delegator account name.
agency_name	Yes	String	Agency name.

Response Parameters

Status code: 201

Table 6-203 Response body parameters

Parameter	Type	Description
[items]	Array of **LTSAccessConfigInfoRespon200** objects	The cross-account log ingestion configuration is created.

Table 6-204 LTSAccessConfigInfoRespon200

Parameter	Type	Description
access_config_id	String	Cross-account log ingestion ID.
project_id	String	Project ID.
access_config_name	String	Cross-account log ingestion name.

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Parameter	Type	Description
access_config_type	Object	Cross-account log ingestion type. Enumeration values: • **Agent** • **CRD** • **AGENCYACCESS** • **K8S_CCE** • **K8S_CUSTOM** • **CLOUD_STREAM_AGENCY**
group_id	String	Log group ID.
log_group_name	String	Log group name.
log_stream_id	String	Log stream ID.
log_stream_name	String	Log stream name.
create_time	Long	Creation time.
agency_log_access	**PreviewAgencyLogAccessReqBody** object	Information of the delegated ingestion.

Table 6-205 PreviewAgencyLogAccessReqBody

Parameter	Type	Description
agency_access_type	String	Log ingestion type. Enumeration values: • **AGENCYACCESS**
agency_log_access	String	Cross-account log ingestion configuration name. The value can contain a maximum of 64 characters.
log_agencyStream_name	String	Delegator log stream name.
log_agencyStream_id	String	Delegator log stream ID.
log_agencyGroup_name	String	Delegator log group name.
log_agencyGroup_id	String	Delegator log group ID.
log_beAgencystream_name	String	Delegatee log stream name.

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Parameter	Type	Description
log_beAgencystream_id	String	Delegatee log stream ID.
log_beAgencygroup_name	String	Delegatee log group name.
log_beAgencygroup_id	String	Delegatee log group ID.
be_agency_project_id	String	Delegatee project ID.
agency_project_id	String	Delegator project ID.
agency_domain_name	String	Delegator account name.
agency_name	String	Agency name.

Status code: 400

Table 6-206 Response body parameters

Parameter	Type	Description
message	ErrorMessagebody object	**Definition** Error details.

Table 6-207 ErrorMessagebody

Parameter	Type	Description
code	String	**Definition** Error code. For details, see Error Codes. **Range** N/A
details	String	**Definition** Error message. **Range** N/A

Status code: 500

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Table 6-208 Response body parameters

Parameter	Type	Description
message	ErrorMessagebody object	**Definition** Error details.

Table 6-209 ErrorMessagebody

Parameter	Type	Description
code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
details	String	**Definition** Error message. **Range** N/A

Example Requests

Creating a cross-account log ingestion configuration.

```
POST https://{endpoint}//v2.0/{project_id}/lts/createAgencyAccess

{
  "preview_agency_list" : [ {
    "agency_log_access" : "rule_lb30",
    "agency_access_type" : "AGENCYACCESS",
    "agency_name" : "wenshufeng",
    "agency_domain_name" : "paas_aom_z00418070_01",
    "agency_project_id" : "a0a12b069ab4491185d7cf26c3e86ada",
    "be_agency_project_id" : "2a473356cca5487f8373be891bffc1cf",
    "log_agencyStream_name" : "lts-topic-bug",
    "log_agencyStream_id" : "beb169ff-e6e9-4bea-8e77-50afdec74071",
    "log_agencyGroup_name" : "lts-group-sgq",
    "log_agencyGroup_id" : "f06cbfa0-7243-4031-9380-ae0465bd3997",
    "log_beAgencystream_name" : "lts-topic-ECS",
    "log_beAgencystream_id" : "36ce06b0-c6bf-436d-9abe-39de86da28bb",
    "log_beAgencygroup_name" : "lts-group-sgqECS",
    "log_beAgencygroup_id" : "1e749063-d9f5-474f-a537-00cad4e9a108"
  } ]
}
```

Example Responses

Status code: 201

The cross-account log ingestion configuration is created.

```
[ {
  "access_config_id" : "e929f40e-d1cf-4d59-b656-a2995cbd3229",
```

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```
  "access_config_name" : "rule_lb30",
  "access_config_type" : "AGENCYACCESS",
  "agency_log_access" : {
    "agency_accessConfig_id" : "e929f40e-d1cf-4d59-b656-a2995cbd3229",
    "agency_access_type" : "AGENCYACCESS",
    "agency_domain_name" : "paas_aom_z00418070_01",
    "agency_log_access" : "rule_lb30",
    "agency_name" : "wenshufeng",
    "agency_project_id" : "a0a12b069ab4491185d7cf26c3e86ada",
    "be_agency_project_id" : "2a473356cca5487f8373be891bffc1cf",
    "log_agencyGroup_id" : "f06cbfa0-7243-4031-9380-ae0465bd3997",
    "log_agencyGroup_name" : "lts-group-sgq",
    "log_agencyStream_id" : "beb169ff-e6e9-4bea-8e77-50afdec74071",
    "log_agencyStream_name" : "lts-topic-bug",
    "log_beAgencygroup_id" : "1e749063-d9f5-474f-a537-00cad4e9a108",
    "log_beAgencygroup_name" : "lts-group-sgqECS",
    "log_beAgencystream_id" : "36ce06b0-c6bf-436d-9abe-39de86da28bb",
    "log_beAgencystream_name" : "lts-topic-ECS"
  },
  "binary_collect" : false,
  "create_time" : 1694400753168,
  "group_id" : "1e749063-d9f5-474f-a537-00cad4e9a108",
  "hostGroupNum" : 0,
  "hostNum" : 0,
  "host_group_info_list" : [ ],
  "host_rule_info" : {
    "black_paths" : [ ],
    "pathType" : "host_file",
    "paths" : [ ],
    "stderr" : false,
    "stdout" : false
  },
  "id" : "",
  "indexId" : "",
  "key" : "",
  "log_group_name" : "lts-group-sgqECS",
  "log_split" : false,
  "log_stream_id" : "36ce06b0-c6bf-436d-9abe-39de86da28bb",
  "log_stream_name" : "lts-topic-ECS",
  "pathNum" : 0,
  "project_id" : "2a473356cca5487f8373be891bffc1cf",
  "tag_list" : [ ]
} ]
```


Status code: 400

Failed to create cross-account log ingestion configuration.


```
{
  "message" : {
    "code" : "LTS.0420",
    "details" : "Agency not existed, check domain name and agency name"
  }
}
```


Status code: 500

Internal service error.


```
{
  "message" : {
    "code" : "LTS.0010",
    "details" : "The system encountered an internal error"
  }
}
```


SDK Sample Code

The SDK sample code is as follows.

Java

Creating a cross-account log ingestion configuration.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateAgencyAccessSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateAgencyAccessRequest request = new CreateAgencyAccessRequest();
        PreviewAgencyLogAccessReqListBody body = new PreviewAgencyLogAccessReqListBody();
        List<PreviewAgencyLogAccessReqBody> listbodyPreviewAgencyList = new ArrayList<>();
        listbodyPreviewAgencyList.add(
            new PreviewAgencyLogAccessReqBody()
                .withAgencyAccessType(PreviewAgencyLogAccessReqBody.AgencyAccessTypeEnum.fromValue("AGENCYACCESS"))
                .withAgencyLogAccess("rule_lb30")
                .withLogAgencyStreamName("lts-topic-bug")
                .withLogAgencyStreamId("beb169ff-e6e9-4bea-8e77-50afdec74071")
                .withLogAgencyGroupName("lts-group-sgq")
                .withLogAgencyGroupId("f06cbfa0-7243-4031-9380-ae0465bd3997")
                .withLogBeAgencystreamName("lts-topic-ECS")
                .withLogBeAgencystreamId("36ce06b0-c6bf-436d-9abe-39de86da28bb")
                .withLogBeAgencygroupName("lts-group-sgqECS")
                .withLogBeAgencygroupId("1e749063-d9f5-474f-a537-00cad4e9a108")
                .withBeAgencyProjectId("2a473356cca5487f8373be891bffc1cf")
                .withAgencyProjectId("a0a12b069ab4491185d7cf26c3e86ada")
                .withAgencyDomainName("paas_aom_z00418070_01")
                .withAgencyName("wenshufeng")
        );
        body.withPreviewAgencyList(listbodyPreviewAgencyList);
        request.withBody(body);
        try {
            CreateAgencyAccessResponse response = client.createAgencyAccess(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
```

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```
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Creating a cross-account log ingestion configuration.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateAgencyAccessRequest()
        listPreviewAgencyListbody = [
            PreviewAgencyLogAccessReqBody(
                agency_access_type="AGENCYACCESS",
                agency_log_access="rule_lb30",
                log_agency_stream_name="lts-topic-bug",
                log_agency_stream_id="beb169ff-e6e9-4bea-8e77-50afdec74071",
                log_agency_group_name="lts-group-sgq",
                log_agency_group_id="f06cbfa0-7243-4031-9380-ae0465bd3997",
                log_be_agencystream_name="lts-topic-ECS",
                log_be_agencystream_id="36ce06b0-c6bf-436d-9abe-39de86da28bb",
                log_be_agencygroup_name="lts-group-sgqECS",
                log_be_agencygroup_id="1e749063-d9f5-474f-a537-00cad4e9a108",
                be_agency_project_id="2a473356cca5487f8373be891bffc1cf",
                agency_project_id="a0a12b069ab4491185d7cf26c3e86ada",
                agency_domain_name="paas_aom_z00418070_01",
                agency_name="wenshufeng"
            )
        ]
        request.body = PreviewAgencyLogAccessReqListBody(
            preview_agency_list=listPreviewAgencyListbody
        )
        response = client.create_agency_access(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

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Go

Creating a cross-account log ingestion configuration.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateAgencyAccessRequest{}
    var listPreviewAgencyListbody = []model.PreviewAgencyLogAccessReqBody{
        {
            AgencyAccessType: model.GetPreviewAgencyLogAccessReqBodyAgencyAccessTypeEnum().AGENCYACCESS,
            AgencyLogAccess: "rule_lb30",
            LogAgencyStreamName: "lts-topic-bug",
            LogAgencyStreamId: "beb169ff-e6e9-4bea-8e77-50afdec74071",
            LogAgencyGroupName: "lts-group-sgq",
            LogAgencyGroupId: "f06cbfa0-7243-4031-9380-ae0465bd3997",
            LogBeAgencystreamName: "lts-topic-ECS",
            LogBeAgencystreamId: "36ce06b0-c6bf-436d-9abe-39de86da28bb",
            LogBeAgencygroupName: "lts-group-sgqECS",
            LogBeAgencygroupId: "1e749063-d9f5-474f-a537-00cad4e9a108",
            BeAgencyProjectId: "2a473356cca5487f8373be891bffc1cf",
            AgencyProjectId: "a0a12b069ab4491185d7cf26c3e86ada",
            AgencyDomainName: "paas_aom_z00418070_01",
            AgencyName: "wenshufeng",
        },
    }
    request.Body = &model.PreviewAgencyLogAccessReqListBody{
        PreviewAgencyList: listPreviewAgencyListbody,
    }
    response, err := client.CreateAgencyAccess(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

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More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
201	The cross-account log ingestion configuration is created.
400	Failed to create cross-account log ingestion configuration.
500	Internal service error.

Error Codes

See **Error Codes**.

6.5.2 Querying Log Ingestion Configurations

Function

This API is used to query log ingestion configurations in LTS, displaying their details and enabling you to filter them by multiple dimensions. This allows you to quickly obtain the required data and significantly improves the efficiency of querying log ingestion configurations.

Calling Method

For details, see **Calling APIs**.

URI

POST /v3/{project_id}/lts/access-config-list

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Table 6-210 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-211 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints:** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-212 Request body parameters

Parameter	Mandatory	Type	Description
access_config_name_list	No	Array of strings	**Definition** Log ingestion configuration name list. **Constraints** N/A
host_group_name_list	No	Array of strings	**Definition** Host group name list. **Constraints** N/A
log_group_name_list	No	Array of strings	**Definition** Log group name list. **Constraints** N/A
log_stream_name_list	No	Array of strings	**Definition** Log stream name list. **Constraints** N/A
access_config_tag_list	No	Array of **accessConfigTag** objects	**Definition** Log ingestion configuration tags. Tags are key-value pairs. The key is the unique identifier for the tag, and the value is its corresponding data. Example: **{"env": "test"}** **Constraints** You can add up to 20 tags.

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Table 6-213 accessConfigTag

Parameter	Mandatory	Type	Description
key	No	String	**Definition** Tag key. **Constraints** • Each tag key must be unique. • A tag is a key-value pair. Each key is paired with its corresponding value. **Range** • A tag key can contain letters, digits, spaces, and special characters (_.:=+-@), but cannot start or end with a space or start with *sys*. • A tag key can contain up to 128 characters. **Default Value** N/A
value	No	String	**Definition** Tag value. **Constraints** A tag is a key-value pair. Each key is paired with its corresponding value. **Range** • A tag value can contain letters, digits, spaces, and special characters (_.:=+-@). • A tag value can contain up to 255 characters. **Default Value** N/A

Response Parameters

Status code: 200

Table 6-214 Response body parameters

Parameter	Type	Description
result	Array of **AccessConfigInfo** objects	**Definition** Log ingestion configuration information list. **Range** N/A
total	Long	**Definition** Number of log ingestion configuration information records. **Range** N/A

Table 6-215 AccessConfigInfo

Parameter	Type	Description
access_config_id	String	**Definition** Log ingestion configuration ID. **Range** N/A
access_config_name	String	**Definition** Log ingestion configuration name. **Range** N/A
access_config_type	String	**Definition** Log ingestion configuration type. **Range** • **AGENT**: ECS text log ingestion. • **K8S_CCE**: CCE application log ingestion.
create_time	Long	**Definition** Time when the log ingestion configuration was created. **Range** N/A
access_config_detail	**AccessConfigDeatilCreate** object	**Definition** Log ingestion configuration details.

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Parameter	Type	Description
log_info	**AccessConfigQueryLogInfo** object	**Definition** Log stream details of the log ingestion configuration.
host_group_info	**AccessConfigHostGroupIdList** object	**Definition** Host group ID list of the log ingestion configuration.
access_config_tag	Array of **accessConfigTagResp** objects	**Definition** Label information of the log ingestion configuration.
log_split	Boolean	**Definition** Whether to split logs. **Range** • **true**: splits logs. • **false**: does not split logs.
binary_collect	Boolean	**Definition** Whether to collect binary data. **Range** • **true**: collects binary data. • **false**: does not collect binary data.
cluster_id	String	**Definition** CCE cluster ID. **Range** N/A
encoding_format	String	**Definition** Encoding format. The default format is UTF-8. **Range** N/A
incremental_collect	Boolean	**Definition** Whether to enable incremental collection. **Range** • **true**: collects new log data. • **false**: collects all log data.

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Parameter	Type	Description
processor_type	String	**Definition** ICAgent structuring parsing type. **Range** • **SINGLE_LINE** • **MULTI_LINE** • **REGEX** • **MULTI_REGEX** • **SPLIT** • **JSON** • **NGINX** • **COMPOSE** • **ORC**
demo_log	String	**Definition** Sample log event. **Range** N/A
demo_fields	Array of **DemoFieldAccess** objects	**Definition** Parsing fields of the sample log event.
processors	Array of **Processor** objects	**Definition** ICAgent structuring parser.
log_split_size	Integer	**Definition** Size at which to split a log file. **Range** N/A
application_id	String	**Definition** ServiceStage application ID. **Range** N/A
environment_id	String	**Definition** ServiceStage environment ID. **Range** N/A
component_id	Array of strings	**Definition** ServiceStage component ID list.

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Parameter	Type	Description
recursive_depth	Integer	**Definition** Maximum recursion depth of a collection path. **Range** N/A
access_config_type_source	String	**Definition** Self-built software source of log ingestion. **Range** • **ECS** • **CCE** • **BMS** • **K8S** • **ServiceStageHost** • **ServiceStage**

Table 6-216 AccessConfigDeatilCreate

Parameter	Type	Description
paths	Array of strings	**Definition** Collection paths. • A path must start with a slash (/) or a letter followed by a colon and a backslash (for example, C:\). • A path cannot contain only slashes (/). The following special characters are not allowed: <>'|" • A path cannot start with /** or /*. • Only one double asterisk (**) can be contained in a path. • The container path and host path are mandatory for the CCE type and are not mandatory for the standard output.

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Parameter	Type	Description
black_paths	Array of strings	**Definition** Collection blacklist paths. • A path must start with a slash (/) or a letter followed by a colon and a backslash (for example, C:\). • A path cannot contain only slashes (/). The following special characters are not allowed: <>'|" • A path cannot start with /** or /*. • Only one double asterisk (**) can be contained in a path.
format	**AccessConfigFormatCreate** object	**Definition** Log format information.
windows_log_info	**AccessConfigWindowsLogInfoCreate** object	**Definition** Windows event log information in a log ingestion configuration.
stdout	Boolean	**Definition** Whether to enable container standard output collection in a CCE application log ingestion configuration. **Range** • **true**: Container standard output collection is enabled. • **false**: Container standard output collection is disabled.
stderr	Boolean	**Definition** Whether to enable container standard error collection in a CCE application log ingestion configuration. **Range** • **true**: Container standard error collection is enabled. • **false**: Container standard error collection is disabled.

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Parameter	Type	Description
pathType	String	**Definition** Data source type. This parameter is available only for CCE application log ingestion. **Range** • **HOST_FILE**: node file type • **CONTAINER_STDOUT**: container standard output • **CONTAINER_FILE**: container file path • **K8S_EVENT**: Kubernetes event
namespaceRegex	String	**Definition** Regular expression used to match Kubernetes namespaces by name. LTS will collect logs from containers within those matched namespaces. To collect logs of all namespaces, leave this parameter empty. This parameter is available only for CCE application log ingestion. **Range** N/A
podNameRegex	String	**Definition** Regular expression used to match Kubernetes pods by name. LTS will collect logs from containers within those matched pods. To collect logs of all pods, leave this parameter empty. This parameter is available only for CCE application log ingestion. **Range** N/A

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Parameter	Type	Description
containerNameRegex	String	**Definition** Regular expression used to match Kubernetes containers by name. Kubernetes container names are defined in **spec.containers**. LTS will collect logs from those matched containers. To collect logs of all containers, leave this parameter empty. This parameter is available only for CCE application log ingestion. **Range** N/A
includeLabels	Map<String,String>	**Definition** Container label whitelist. When configuring CCE application log ingestion, you can specify containers whose logs are to be collected by adding container label whitelists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. ● *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. ● *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their container labels are matched. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their container labels are matched. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.

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Parameter	Type	Description
excludeLabels	Map<String,String>	**Definition** Container label blacklist. When configuring CCE application log ingestion, you can specify containers whose logs are not to be collected by adding container label blacklists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. • *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. • *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their container labels are excluded. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their container labels are excluded. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.

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Parameter	Type	Description
includeEnvs	Map<String,String>	**Definition** Environment variable whitelist. When configuring CCE application log ingestion, you can specify containers whose logs are to be collected by adding environment variable whitelists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. ● *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. ● *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their environment variables are matched. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their environment variables are matched. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.

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Parameter	Type	Description
excludeEnvs	Map<String,String>	**Definition** Environment variable blacklist. When configuring CCE application log ingestion, you can specify containers whose logs are not to be collected by adding environment variable blacklists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. ● *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. ● *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their environment variables are excluded. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their environment variables are excluded. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.
logLabels	Map<String,String>	**Definition** Container label. When configuring CCE application log ingestion, you can use this parameter to add container label fields to logs. For example, if you set **app** as the LabelKey and **app_alias** as the LabelValue, when a container's labels contain **app=lts**, the field **{app_alias:lts}** will be added to the logs of that container.
logEnvs	Map<String,String>	**Definition** Environment variable. When configuring CCE application log ingestion, you can use this parameter to add environment variable fields to logs. For example, if you set **app** as the environment variable key and **app_alias** as the value, when the Kubernetes environment variables contain **app=lts**, **{app_alias:lts}** will be added to the Kubernetes logs.

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Parameter	Type	Description
includeK8sLabels	Map<String,String>	**Definition** Kubernetes label whitelist. When configuring CCE application log ingestion, you can specify containers whose logs are to be collected by adding Kubernetes label whitelists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. ● *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. ● *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their Kubernetes labels are matched. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their Kubernetes labels are matched. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.

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Parameter	Type	Description
excludeK8sLabels	Map<String,String>	**Definition** Kubernetes label blacklist. When configuring CCE application log ingestion, you can specify containers whose logs are not to be collected by adding Kubernetes label blacklists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. • *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. • *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their Kubernetes labels are excluded. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their Kubernetes labels are excluded. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.
logK8s	Map<String,String>	**Definition** Kubernetes label. When configuring CCE application log ingestion, you can use this parameter to add Kubernetes label fields to logs. For example, if you set **app** as the LabelKey and **app_alias** as the LabelValue, when a container's labels contain **app=lts**, the field **{app_alias:lts}** will be added to the logs of that container.
repeat_collect	Boolean	**Definition** Whether repeated file collection is allowed. **Range** • **true**: One host log file can be collected to multiple log streams. • **false**: Each collection path must be unique. That is, the same log file in the same host cannot be collected to different log streams.

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Parameter	Type	Description
system_fields	Array of strings	**Definition** System built-in fields. When configuring a log ingestion rule, you can specify system fields to include in the tag data of each log reported. If this parameter is modified, the original configuration will be overwritten. ● The system fields for host log files are **hostName**, **hostId**, **hostIP**, **pathFile**, **hostIPv6**, **category**, **collectTime**, and **__host_group__**. ● The system fields for Kubernetes cluster container log files are **hostName**, **hostId**, **hostIP**, **pathFile**, **hostIPv6**, **clusterId**, **podName**, **appName**, **containerName**, **nameSpace**, **category**, **collectTime**, **__host_group__**, **serviceID**, **podIp**, **clusterName**, **workloadType**, and **__image_name__**.
custom_key_value	Map<String,String>	**Definition** Custom key-value pairs. When configuring log ingestion, you can configure up to 20 custom key-value pairs to be included as fields in the tag data of each log reported. If this parameter is modified, the original configuration will be overwritten. ● *Key*: Enter up to 128 characters, including letters, digits, underscores (_), and hyphens (-). ● *Value*: Enter up to 1,024 characters.
includeLabelsLogical	String	**Definition** Logic for multiple container label whitelists, which determines how the whitelists are applied. The value can be **AND** (all whitelists must be met) or **OR** (default value; any whitelist is met). **Range** ● AND ● OR

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Parameter	Type	Description
excludeLabelsLogical	String	**Definition** Logic for multiple container label blacklists, which determines how the blacklists are applied. The value can be **AND** (all blacklists must be met) or **OR** (default value; any blacklist is met). **Range** ● AND ● OR
includeK8sLabelsLogical	String	**Definition** Logic for multiple Kubernetes label whitelists, which determines how the whitelists are applied. The value can be **AND** (all whitelists must be met) or **OR** (default value; any whitelist is met). **Range** ● AND ● OR
excludeK8sLabelsLogical	String	**Definition** Logic for multiple Kubernetes label blacklists, which determines how the blacklists are applied. The value can be **AND** (all blacklists must be met) or **OR** (default value; any blacklist is met). **Range** ● AND ● OR
includeEnvsLogical	String	**Definition** Logic for multiple environment variable whitelists, which determines how the whitelists are applied. The value can be **AND** (all whitelists must be met) or **OR** (default value; any whitelist is met). **Range** ● AND ● OR

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Parameter	Type	Description
excludeEnvsLogical	String	**Definition** Logic for multiple environment variable blacklists, which determines how the blacklists are applied. The value can be **AND** (all blacklists must be met) or **OR** (default value; any blacklist is met). **Range** • AND • OR

Table 6-217 AccessConfigFormatCreate

Parameter	Type	Description
single	**AccessConfigFormatSingleCreate** object	**Definition** Single-line log. Each log line is displayed as a separate log event on the LTS console.
multi	**AccessConfigFormatMutilCreate** object	**Definition** Multi-line log. Multiple consecutive log lines are displayed as one log event on the LTS console.

Table 6-218 AccessConfigFormatSingleCreate

Parameter	Type	Description
mode	String	**Definition** Single-line log collection mode. **Range** • **system**: system time • **wildcard**: time wildcard

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Parameter	Type	Description
value	String	**Definition** Log time. • If **mode** is **system**, enter the current timestamp for **value**. • If **mode** is set to **wildcard**, enter a time wildcard for **value**. When a time wildcard is used to match the log printing time displayed at the beginning of a log event: If the time format in a log event is **2019-01-01 23:59:59**, the time wildcard is **YYYY-MM-DD hh:mm:ss**. If the time format in a log event is **19-1-1 23:59:59**, the time wildcard is **YY-M-D hh:mm:ss**. **Range** N/A

Table 6-219 AccessConfigFormatMutilCreate

Parameter	Type	Description
mode	String	**Definition** Multi-line log collection mode. **Range** • **time**: log time • **regular**: regular expression mode
value	String	**Definition** Log time. • If **mode** is **system**, enter the current timestamp for **value**. • If **mode** is set to **wildcard**, enter a time wildcard for **value**. When a time wildcard is used to match the log printing time displayed at the beginning of a log event: If the time format in a log event is **2019-01-01 23:59:59**, the time wildcard is **YYYY-MM-DD hh:mm:ss**. If the time format in a log event is **19-1-1 23:59:59**, the time wildcard is **YY-M-D hh:mm:ss**. **Range** N/A

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Table 6-220 AccessConfigWindowsLogInfoCreate

Parameter	Type	Description
categorys	Array of strings	**Definition** Type of Windows event logs to be collected. There are four types: • **Application** • **System** • **Security** • **Setup**: start
time_offset	**AccessConfigTimeOffset** object	**Definition** Offset of the first collection time. This parameter is used to correct the time deviation or calculate the relative time. If you set this parameter to **7**, logs generated within the seven days before the collection start time are collected. This offset takes effect only for the first collection to ensure that the logs are not repeatedly collected.
event_level	Array of strings	**Definition** Event level. You can filter Windows events based on their levels. This function is available only to Windows Vista or later. There are five levels: • **information** • **warning** • **error** • **critical** • **verbose**

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Table 6-221 AccessConfigTimeOffset

Parameter	Type	Description
offset	Long	**Definition** Time offset. • When **unit** is **day**, the value of **offset** ranges from 1 to 7. • When **unit** is **hour**, the value of **offset** ranges from 1 to 168. • When **unit** is **sec**, the value of **offset** ranges from 1 to 604,800. **Range** N/A
unit	String	**Definition** Unit of the offset time. • **day** • **hour** • **sec** **Range** N/A

Table 6-222 AccessConfigQueryLogInfo

Parameter	Type	Description
log_group_id	String	**Definition** Log group ID. **Range** N/A
log_stream_id	String	**Definition** Log stream ID. **Range** N/A
log_group_name	String	**Definition** Log group name. **Range** N/A

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Parameter	Type	Description
log_stream_name	String	**Definition** Log stream name. **Range** N/A

Table 6-223 AccessConfigHostGroupIdList

Parameter	Type	Description
host_group_id_list	Array of strings	**Definition** Host group ID list.

Table 6-224 accessConfigTagResp

Parameter	Type	Description
key	String	**Definition** Tag key. **Range** • A tag key can contain letters, digits, spaces, and special characters (_.:=+-@), but cannot start or end with a space or start with *sys*. • A tag key can contain up to 128 characters.
value	String	**Definition** Tag value. **Range** • A tag value can contain letters, digits, spaces, and special characters (_.:=+-@). • A tag value can contain up to 255 characters.

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Table 6-225 DemoFieldAccess

Parameter	Type	Description
field_name	String	**Definition** Parsing fields of the sample log event. **Range** N/A
field_value	String	**Definition** Value of a field in a sample log. **Range** N/A

Table 6-226 Processor

Parameter	Type	Description
type	String	**Definition** Structuring parsing type. The values are as follows: • **processor_regex**: regular expression • **processor_split_string**: delimiter • **processor_json**: JSON • **processor_gotime**: custom time type • **processor_filter_regex**: log filtering • **processor_drop**: type of fields to be deleted • **processor_rename**: type of fields to be modified **Range** N/A
detail	**Detail** object	**Definition** Structuring parsing configuration information.

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Table 6-227 Detail

Parameter	Type	Description
source_key	String	**Definition** Original field for storing log content before log structuring parsing. The default value is **content**. **Range** N/A
regex	String	**Definition** Regular expression. Regular expression used to match logs. **Range** N/A
keys	Array of strings	**Definition** Name of an extracted field. Set a corresponding field name for the extracted log content.
multi_line_regex	String	**Definition** First line regular expression. **Range** N/A
keep_source	Boolean	**Definition** Whether to upload raw logs. **Range** **true**: retains raw logs. **false**: does not retain raw logs.
keep_source_if_parse_error	Boolean	**Definition** Whether to upload logs that fail to be parsed. **Range** **true**: uploads logs that fail to be parsed. **false**: does not upload logs that fail to be parsed.
split_sep	String	**Definition** Delimiters. Set delimiters based on the log content, for example, vertical bar (|). **Range** N/A

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Parameter	Type	Description
split_type	String	**Definition** Delimiter type. The value can be **char** (single character), **special_char** (invisible characters), or **string**. **Range** N/A
fields	Map<String,String>	**Definition** Field name and value to be added, in the key-value pair format. You can add multiple key-value pairs.
drop_keys	Array of strings	**Definition** List of discarded fields.
source_keys	Array of strings	**Definition** Original field to be renamed.
dest_keys	Array of strings	**Definition** Renamed field.
expand_depth	Integer	**Definition** Depth of JSON expansion. The default value is **0**, indicating that there is no limit. **1** indicates the one level, and so on. **Range** N/A
expand_connector	String	**Definition** Connector for JSON expansion. The default value is a period (.). **Range** N/A
source_format	String	**Definition** Format of the original time. **Range** N/A
source_value	String	**Definition** Field value of the original time. **Range** N/A

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Parameter	Type	Description
set_time	Boolean	**Definition** Whether to set the parsed time as the log time. **Range** N/A
include	Map<String,String>	**Definition** Log filtering whitelist rule, in the format of key-value pairs. Each key indicates a log field and must be unique, with a maximum of 256 characters. The corresponding value is a regular expression that specifies the filtering criteria.
exclude	Map<String,String>	**Definition** Log filtering blacklist rule, in the format of key-value pairs. Each key indicates a log field and must be unique, with a maximum of 256 characters. The corresponding value is a regular expression that specifies the filtering criteria.

Status code: 400

Table 6-228 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

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Table 6-229 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Log ingestion configurations are filtered by the request body.

```
POST https://{endpoint}/v3/{project_id}/lts/access-config-list

{
  "access_config_name_list" : [ "Collectionxx2", "22x", "2x", "CollectionWjxxxx" ],
  "host_group_name_list" : [ "wwxx" ],
  "log_group_name_list" : [ "lts-grxx", "lts-xx", "lts-gxx" ],
  "log_stream_name_list" : [ "lts-topixx", "lts-txx" ],
  "access_config_tag_list" : [ {
    "key" : "xxx",
    "value" : "xxx"
  }, {
    "key" : "xxx1",
    "value" : "xxx1"
  } ]
}
```

Example Responses

Status code: 200

The log ingestion list query is successful.

```
{
  "result" : [ {
    "access_config_detail" : {
      "containerNameRegex" : "my",
      "excludeEnvs" : {
        "h" : "8"
      },
      "excludeK8sLabels" : {
        "e" : "5"
      },
      "excludeLabels" : {
        "b" : "2"
      },
      "format" : {
        "single" : {
          "mode" : "system",
          "value" : "1678969382000"
        }
```

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```
    },
    "includeEnvs" : {
      "g" : "7"
    },
    "includeK8sLabels" : {
      "d30" : "4"
    },
    "includeLabels" : {
      "a" : "1"
    },
    "logEnvs" : {
      "i" : "9"
    },
    "logK8s" : {
      "f" : "6"
    },
    "logLabels" : {
      "c" : "3"
    },
    "namespaceRegex" : "default",
    "pathType" : "container_stdout",
    "paths" : [ ],
    "podNameRegex" : "abc",
    "stderr" : false,
    "stdout" : true
  },
  "access_config_id" : "c3152f88-8b06-4f7f-bbbe-129512f49f87",
  "access_config_name" : "myapinew322",
  "access_config_tag" : [ {
    "key" : "my01",
    "value" : "001"
  }, {
    "key" : "my02",
    "value" : "002"
  } ],
  "access_config_type" : "K8S_CCE",
  "binary_collect" : false,
  "create_time" : 1684467787996,
  "host_group_info" : {
    "host_group_id_list" : [ "12b0bbd1-4eda-456b-a641-647aa66bdeab" ]
  },
  "log_info" : {
    "log_group_id" : "9575cb24-290c-478e-a5db-88d6d1dc513b",
    "log_group_name" : "my-group",
    "log_stream_id" : "3581bee9-8698-476e-a0ba-b0f310ed99cf",
    "log_stream_name" : "lts-topic-api"
  },
  "log_split" : false
}, {
  "access_config_detail" : {
    "containerNameRegex" : "my",
    "excludeEnvs" : {
      "h" : "8"
    },
    "excludeK8sLabels" : {
      "e" : "5"
    },
    "excludeLabels" : {
      "b" : "2"
    },
    "format" : {
      "single" : {
        "mode" : "system",
        "value" : "1678969382000"
      }
    },
    "includeEnvs" : {
      "g" : "7"
    },
```


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```
    "includeK8sLabels" : {
      "d10" : "4",
      "d" : "4",
      "d12" : "4",
      "d11" : "4",
      "d14" : "4",
      "d13" : "4",
      "d16" : "4",
      "d15" : "4",
      "d18" : "4",
      "d17" : "4",
      "d1" : "4",
      "d2" : "4",
      "d3" : "4",
      "d4" : "4",
      "d5" : "4",
      "d6" : "4",
      "d7" : "4",
      "d8" : "4",
      "d9" : "4"
    },
    "includeLabels" : {
      "a" : "1"
    },
    "logEnvs" : {
      "i" : "9"
    },
    "logK8s" : {
      "f" : "6"
    },
    "logLabels" : {
      "c" : "3"
    },
    "namespaceRegex" : "default",
    "pathType" : "container_stdout",
    "paths" : [ ],
    "podNameRegex" : "abc",
    "stderr" : false,
    "stdout" : true
  },
  "access_config_id" : "550cd738-7b16-4724-9c59-aba61bf16528",
  "access_config_name" : "myapinew32",
  "access_config_tag" : [ {
    "key" : "my01",
    "value" : "001"
  }, {
    "key" : "my02",
    "value" : "002"
  } ],
  "access_config_type" : "K8S_CCE",
  "binary_collect" : false,
  "create_time" : 1684463134956,
  "host_group_info" : {
    "host_group_id_list" : [ "12b0bbd1-4eda-456b-a641-647aa66bdeab" ]
  },
  "log_info" : {
    "log_group_id" : "9575cb24-290c-478e-a5db-88d6d1dc513b",
    "log_group_name" : "my-group",
    "log_stream_id" : "3581bee9-8698-476e-a0ba-b0f310ed99cf",
    "log_stream_name" : "lts-topic-api"
  },
  "log_split" : false
 } ],
 "total" : 2
}
```


Status code: 400

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Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.1807",
  "error_msg" : "Invalid access config name"
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0010",
  "error_msg" : "The system encountered an internal error"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Log ingestion configurations are filtered by the request body.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class ListAccessConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListAccessConfigRequest request = new ListAccessConfigRequest();
        GetAccessConfigListRequestBody body = new GetAccessConfigListRequestBody();
        List<AccessConfigTag> listbodyAccessConfigTagList = new ArrayList<>();
        listbodyAccessConfigTagList.add(
            new AccessConfigTag()
                .withKey("xxx")
                .withValue("xxx")
```

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```
        );
        listbodyAccessConfigTagList.add(
            new AccessConfigTag()
                .withKey("xxx1")
                .withValue("xxx1")
        );
        List<String> listbodyLogStreamNameList = new ArrayList<>();
        listbodyLogStreamNameList.add("lts-topixx");
        listbodyLogStreamNameList.add("lts-txx");
        List<String> listbodyLogGroupNameList = new ArrayList<>();
        listbodyLogGroupNameList.add("lts-grxx");
        listbodyLogGroupNameList.add("lts-xx");
        listbodyLogGroupNameList.add("lts-gxx");
        List<String> listbodyHostGroupNameList = new ArrayList<>();
        listbodyHostGroupNameList.add("wwxx");
        List<String> listbodyAccessConfigNameList = new ArrayList<>();
        listbodyAccessConfigNameList.add("Collectionxx2");
        listbodyAccessConfigNameList.add("22x");
        listbodyAccessConfigNameList.add("2x");
        listbodyAccessConfigNameList.add("CollectionWjxxxx");
        body.withAccessConfigTagList(listbodyAccessConfigTagList);
        body.withLogStreamNameList(listbodyLogStreamNameList);
        body.withLogGroupNameList(listbodyLogGroupNameList);
        body.withHostGroupNameList(listbodyHostGroupNameList);
        body.withAccessConfigNameList(listbodyAccessConfigNameList);
        request.withBody(body);
        try {
            ListAccessConfigResponse response = client.listAccessConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Log ingestion configurations are filtered by the request body.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
```

```
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListAccessConfigRequest()
        listAccessConfigTagListbody = [
            AccessConfigTag(
                key="xxx",
                value="xxx"
            ),
            AccessConfigTag(
                key="xxx1",
                value="xxx1"
            )
        ]
        listLogStreamNameListbody = [
            "lts-topixx",
            "lts-txx"
        ]
        listLogGroupNameListbody = [
            "lts-grxx",
            "lts-xx",
            "lts-gxx"
        ]
        listHostGroupNameListbody = [
            "wwxx"
        ]
        listAccessConfigNameListbody = [
            "Collectionxx2",
            "22x",
            "2x",
            "CollectionWjxxxx"
        ]
        request.body = GetAccessConfigListRequestBody(
            access_config_tag_list=listAccessConfigTagListbody,
            log_stream_name_list=listLogStreamNameListbody,
            log_group_name_list=listLogGroupNameListbody,
            host_group_name_list=listHostGroupNameListbody,
            access_config_name_list=listAccessConfigNameListbody
        )
        response = client.list_access_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Log ingestion configurations are filtered by the request body.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
```

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```
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListAccessConfigRequest{}
    keyAccessConfigTagList:= "xxx"
    valueAccessConfigTagList:= "xxx"
    keyAccessConfigTagList1:= "xxx1"
    valueAccessConfigTagList1:= "xxx1"
    var listAccessConfigTagListbody = []model.AccessConfigTag{
        {
            Key: &keyAccessConfigTagList,
            Value: &valueAccessConfigTagList,
        },
        {
            Key: &keyAccessConfigTagList1,
            Value: &valueAccessConfigTagList1,
        },
    }
    var listLogStreamNameListbody = []string{
        "lts-topixx",
        "lts-txx",
    }
    var listLogGroupNameListbody = []string{
        "lts-grxx",
        "lts-xx",
        "lts-gxx",
    }
    var listHostGroupNameListbody = []string{
        "wwxx",
    }
    var listAccessConfigNameListbody = []string{
        "Collectionxx2",
        "22x",
        "2x",
        "CollectionWjxxxx",
    }
    request.Body = &model.GetAccessConfigListRequestBody{
        AccessConfigTagList: &listAccessConfigTagListbody,
        LogStreamNameList: &listLogStreamNameListbody,
        LogGroupNameList: &listLogGroupNameListbody,
        HostGroupNameList: &listHostGroupNameListbody,
        AccessConfigNameList: &listAccessConfigNameListbody,
    }
    response, err := client.ListAccessConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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Status Codes

Status Code	Description
200	The log ingestion list query is successful.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.5.3 Deleting Log Ingestion Configurations

Function

This API is used to delete log ingestion configurations.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v3/{project_id}/lts/access-config

Table 6-230 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A

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Request Parameters

Table 6-231 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-232 Request body parameters

Parameter	Mandatory	Type	Description
access_config_id_list	Yes	Array of strings	Ingestion configuration ID list. Minimum: **36** Maximum: **36**

Response Parameters

Status code: 200

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Table 6-233 Response body parameters

Parameter	Type	Description
result	Array of **AccessConfigInfo** objects	**Definition** Log ingestion configuration information list. **Range** N/A
total	Long	**Definition** Number of log ingestion configuration information records. **Range** N/A

Table 6-234 AccessConfigInfo

Parameter	Type	Description
access_config_id	String	**Definition** Log ingestion configuration ID. **Range** N/A
access_config_name	String	**Definition** Log ingestion configuration name. **Range** N/A
access_config_type	String	**Definition** Log ingestion configuration type. **Range** • **AGENT**: ECS text log ingestion. • **K8S_CCE**: CCE application log ingestion.
create_time	Long	**Definition** Time when the log ingestion configuration was created. **Range** N/A
access_config_detail	**AccessConfigDeatilCreate** object	**Definition** Log ingestion configuration details.

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Parameter	Type	Description
log_info	**AccessConfigQueryLogInfo** object	**Definition** Log stream details of the log ingestion configuration.
host_group_info	**AccessConfigHostGroupIdList** object	**Definition** Host group ID list of the log ingestion configuration.
access_config_tag	Array of **accessConfigTagResp** objects	**Definition** Label information of the log ingestion configuration.
log_split	Boolean	**Definition** Whether to split logs. **Range** • **true**: splits logs. • **false**: does not split logs.
binary_collect	Boolean	**Definition** Whether to collect binary data. **Range** • **true**: collects binary data. • **false**: does not collect binary data.
cluster_id	String	**Definition** CCE cluster ID. **Range** N/A
encoding_format	String	**Definition** Encoding format. The default format is UTF-8. **Range** N/A
incremental_collect	Boolean	**Definition** Whether to enable incremental collection. **Range** • **true**: collects new log data. • **false**: collects all log data.

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Parameter	Type	Description
processor_type	String	**Definition** ICAgent structuring parsing type. **Range** • **SINGLE_LINE** • **MULTI_LINE** • **REGEX** • **MULTI_REGEX** • **SPLIT** • **JSON** • **NGINX** • **COMPOSE** • **ORC**
demo_log	String	**Definition** Sample log event. **Range** N/A
demo_fields	Array of **DemoFieldAccess** objects	**Definition** Parsing fields of the sample log event.
processors	Array of **Processor** objects	**Definition** ICAgent structuring parser.
log_split_size	Integer	**Definition** Size at which to split a log file. **Range** N/A
application_id	String	**Definition** ServiceStage application ID. **Range** N/A
environment_id	String	**Definition** ServiceStage environment ID. **Range** N/A
component_id	Array of strings	**Definition** ServiceStage component ID list.

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Parameter	Type	Description
recursive_depth	Integer	**Definition** Maximum recursion depth of a collection path. **Range** N/A
access_config_type_source	String	**Definition** Self-built software source of log ingestion. **Range** • **ECS** • **CCE** • **BMS** • **K8S** • **ServiceStageHost** • **ServiceStage**

Table 6-235 AccessConfigDeatilCreate

Parameter	Type	Description
paths	Array of strings	**Definition** Collection paths. • A path must start with a slash (/) or a letter followed by a colon and a backslash (for example, C:\). • A path cannot contain only slashes (/). The following special characters are not allowed: <>'|" • A path cannot start with /** or /*. • Only one double asterisk (**) can be contained in a path. • The container path and host path are mandatory for the CCE type and are not mandatory for the standard output.

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Parameter	Type	Description
black_paths	Array of strings	**Definition** Collection blacklist paths. • A path must start with a slash (/) or a letter followed by a colon and a backslash (for example, C:\). • A path cannot contain only slashes (/). The following special characters are not allowed: <>'|" • A path cannot start with /** or /*. • Only one double asterisk (**) can be contained in a path.
format	**AccessConfigFormatCreate** object	**Definition** Log format information.
windows_log_info	**AccessConfigWindowsLogInfoCreate** object	**Definition** Windows event log information in a log ingestion configuration.
stdout	Boolean	**Definition** Whether to enable container standard output collection in a CCE application log ingestion configuration. **Range** • **true**: Container standard output collection is enabled. • **false**: Container standard output collection is disabled.
stderr	Boolean	**Definition** Whether to enable container standard error collection in a CCE application log ingestion configuration. **Range** • **true**: Container standard error collection is enabled. • **false**: Container standard error collection is disabled.

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Parameter	Type	Description
pathType	String	**Definition** Data source type. This parameter is available only for CCE application log ingestion. **Range** • **HOST_FILE**: node file type • **CONTAINER_STDOUT**: container standard output • **CONTAINER_FILE**: container file path • **K8S_EVENT**: Kubernetes event
namespaceRegex	String	**Definition** Regular expression used to match Kubernetes namespaces by name. LTS will collect logs from containers within those matched namespaces. To collect logs of all namespaces, leave this parameter empty. This parameter is available only for CCE application log ingestion. **Range** N/A
podNameRegex	String	**Definition** Regular expression used to match Kubernetes pods by name. LTS will collect logs from containers within those matched pods. To collect logs of all pods, leave this parameter empty. This parameter is available only for CCE application log ingestion. **Range** N/A

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Parameter	Type	Description
containerNameRegex	String	**Definition** Regular expression used to match Kubernetes containers by name. Kubernetes container names are defined in **spec.containers**. LTS will collect logs from those matched containers. To collect logs of all containers, leave this parameter empty. This parameter is available only for CCE application log ingestion. **Range** N/A
includeLabels	Map<String,String>	**Definition** Container label whitelist. When configuring CCE application log ingestion, you can specify containers whose logs are to be collected by adding container label whitelists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. ● *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. ● *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their container labels are matched. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their container labels are matched. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.

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Parameter	Type	Description
excludeLabels	Map<String,String>	**Definition** Container label blacklist. When configuring CCE application log ingestion, you can specify containers whose logs are not to be collected by adding container label blacklists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. • *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. • *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their container labels are excluded. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their container labels are excluded. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.

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Parameter	Type	Description
includeEnvs	Map<String,String>	**Definition** Environment variable whitelist. When configuring CCE application log ingestion, you can specify containers whose logs are to be collected by adding environment variable whitelists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. ● *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. ● *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their environment variables are matched. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their environment variables are matched. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.

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Parameter	Type	Description
excludeEnvs	Map<String,String>	**Definition** Environment variable blacklist. When configuring CCE application log ingestion, you can specify containers whose logs are not to be collected by adding environment variable blacklists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. ● *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. ● *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their environment variables are excluded. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their environment variables are excluded. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.
logLabels	Map<String,String>	**Definition** Container label. When configuring CCE application log ingestion, you can use this parameter to add container label fields to logs. For example, if you set **app** as the LabelKey and **app_alias** as the LabelValue, when a container's labels contain **app=lts**, the field **{app_alias:lts}** will be added to the logs of that container.
logEnvs	Map<String,String>	**Definition** Environment variable. When configuring CCE application log ingestion, you can use this parameter to add environment variable fields to logs. For example, if you set **app** as the environment variable key and **app_alias** as the value, when the Kubernetes environment variables contain **app=lts**, **{app_alias:lts}** will be added to the Kubernetes logs.

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Parameter	Type	Description
includeK8sLabels	Map<String,String>	**Definition** Kubernetes label whitelist. When configuring CCE application log ingestion, you can specify containers whose logs are to be collected by adding Kubernetes label whitelists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. ● *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. ● *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their Kubernetes labels are matched. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their Kubernetes labels are matched. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.

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Parameter	Type	Description
excludeK8sLabels	Map<String,String>	**Definition** Kubernetes label blacklist. When configuring CCE application log ingestion, you can specify containers whose logs are not to be collected by adding Kubernetes label blacklists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. • *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. • *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their Kubernetes labels are excluded. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their Kubernetes labels are excluded. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.
logK8s	Map<String,String>	**Definition** Kubernetes label. When configuring CCE application log ingestion, you can use this parameter to add Kubernetes label fields to logs. For example, if you set **app** as the LabelKey and **app_alias** as the LabelValue, when a container's labels contain **app=lts**, the field **{app_alias:lts}** will be added to the logs of that container.
repeat_collect	Boolean	**Definition** Whether repeated file collection is allowed. **Range** • **true**: One host log file can be collected to multiple log streams. • **false**: Each collection path must be unique. That is, the same log file in the same host cannot be collected to different log streams.

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Parameter	Type	Description
system_fields	Array of strings	**Definition** System built-in fields. When configuring a log ingestion rule, you can specify system fields to include in the tag data of each log reported. If this parameter is modified, the original configuration will be overwritten. ● The system fields for host log files are **hostName**, **hostId**, **hostIP**, **pathFile**, **hostIPv6**, **category**, **collectTime**, and **__host_group__**. ● The system fields for Kubernetes cluster container log files are **hostName**, **hostId**, **hostIP**, **pathFile**, **hostIPv6**, **clusterId**, **podName**, **appName**, **containerName**, **nameSpace**, **category**, **collectTime**, **__host_group__**, **serviceID**, **podIp**, **clusterName**, **workloadType**, and **__image_name__**.
custom_key_value	Map<String,String>	**Definition** Custom key-value pairs. When configuring log ingestion, you can configure up to 20 custom key-value pairs to be included as fields in the tag data of each log reported. If this parameter is modified, the original configuration will be overwritten. ● *Key*: Enter up to 128 characters, including letters, digits, underscores (_), and hyphens (-). ● *Value*: Enter up to 1,024 characters.
includeLabelsLogical	String	**Definition** Logic for multiple container label whitelists, which determines how the whitelists are applied. The value can be **AND** (all whitelists must be met) or **OR** (default value; any whitelist is met). **Range** ● AND ● OR

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Parameter	Type	Description
excludeLabelsLogical	String	**Definition** Logic for multiple container label blacklists, which determines how the blacklists are applied. The value can be **AND** (all blacklists must be met) or **OR** (default value; any blacklist is met). **Range** ● AND ● OR
includeK8sLabelsLogical	String	**Definition** Logic for multiple Kubernetes label whitelists, which determines how the whitelists are applied. The value can be **AND** (all whitelists must be met) or **OR** (default value; any whitelist is met). **Range** ● AND ● OR
excludeK8sLabelsLogical	String	**Definition** Logic for multiple Kubernetes label blacklists, which determines how the blacklists are applied. The value can be **AND** (all blacklists must be met) or **OR** (default value; any blacklist is met). **Range** ● AND ● OR
includeEnvsLogical	String	**Definition** Logic for multiple environment variable whitelists, which determines how the whitelists are applied. The value can be **AND** (all whitelists must be met) or **OR** (default value; any whitelist is met). **Range** ● AND ● OR

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Parameter	Type	Description
excludeEnvsLogical	String	**Definition** Logic for multiple environment variable blacklists, which determines how the blacklists are applied. The value can be **AND** (all blacklists must be met) or **OR** (default value; any blacklist is met). **Range** • AND • OR

Table 6-236 AccessConfigFormatCreate

Parameter	Type	Description
single	**AccessConfigFormatSingleCreate** object	**Definition** Single-line log. Each log line is displayed as a separate log event on the LTS console.
multi	**AccessConfigFormatMutilCreate** object	**Definition** Multi-line log. Multiple consecutive log lines are displayed as one log event on the LTS console.

Table 6-237 AccessConfigFormatSingleCreate

Parameter	Type	Description
mode	String	**Definition** Single-line log collection mode. **Range** • **system**: system time • **wildcard**: time wildcard

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Parameter	Type	Description
value	String	**Definition** Log time. • If **mode** is **system**, enter the current timestamp for **value**. • If **mode** is set to **wildcard**, enter a time wildcard for **value**. When a time wildcard is used to match the log printing time displayed at the beginning of a log event: If the time format in a log event is **2019-01-01 23:59:59**, the time wildcard is **YYYY-MM-DD hh:mm:ss**. If the time format in a log event is **19-1-1 23:59:59**, the time wildcard is **YY-M-D hh:mm:ss**. **Range** N/A

Table 6-238 AccessConfigFormatMutilCreate

Parameter	Type	Description
mode	String	**Definition** Multi-line log collection mode. **Range** • **time**: log time • **regular**: regular expression mode
value	String	**Definition** Log time. • If **mode** is **system**, enter the current timestamp for **value**. • If **mode** is set to **wildcard**, enter a time wildcard for **value**. When a time wildcard is used to match the log printing time displayed at the beginning of a log event: If the time format in a log event is **2019-01-01 23:59:59**, the time wildcard is **YYYY-MM-DD hh:mm:ss**. If the time format in a log event is **19-1-1 23:59:59**, the time wildcard is **YY-M-D hh:mm:ss**. **Range** N/A

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Table 6-239 AccessConfigWindowsLogInfoCreate

Parameter	Type	Description
categorys	Array of strings	**Definition** Type of Windows event logs to be collected. There are four types: • **Application** • **System** • **Security** • **Setup**: start
time_offset	**AccessConfigTimeOffset** object	**Definition** Offset of the first collection time. This parameter is used to correct the time deviation or calculate the relative time. If you set this parameter to **7**, logs generated within the seven days before the collection start time are collected. This offset takes effect only for the first collection to ensure that the logs are not repeatedly collected.
event_level	Array of strings	**Definition** Event level. You can filter Windows events based on their levels. This function is available only to Windows Vista or later. There are five levels: • **information** • **warning** • **error** • **critical** • **verbose**

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Table 6-240 AccessConfigTimeOffset

Parameter	Type	Description
offset	Long	**Definition** Time offset. • When **unit** is **day**, the value of **offset** ranges from 1 to 7. • When **unit** is **hour**, the value of **offset** ranges from 1 to 168. • When **unit** is **sec**, the value of **offset** ranges from 1 to 604,800. **Range** N/A
unit	String	**Definition** Unit of the offset time. • **day** • **hour** • **sec** **Range** N/A

Table 6-241 AccessConfigQueryLogInfo

Parameter	Type	Description
log_group_id	String	**Definition** Log group ID. **Range** N/A
log_stream_id	String	**Definition** Log stream ID. **Range** N/A
log_group_name	String	**Definition** Log group name. **Range** N/A

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Parameter	Type	Description
log_stream_name	String	**Definition** Log stream name. **Range** N/A

Table 6-242 AccessConfigHostGroupIdList

Parameter	Type	Description
host_group_id_list	Array of strings	**Definition** Host group ID list.

Table 6-243 accessConfigTagResp

Parameter	Type	Description
key	String	**Definition** Tag key. **Range** • A tag key can contain letters, digits, spaces, and special characters (_.:=+-@), but cannot start or end with a space or start with *sys*. • A tag key can contain up to 128 characters.
value	String	**Definition** Tag value. **Range** • A tag value can contain letters, digits, spaces, and special characters (_.:=+-@). • A tag value can contain up to 255 characters.

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Table 6-244 DemoFieldAccess

Parameter	Type	Description
field_name	String	**Definition** Parsing fields of the sample log event. **Range** N/A
field_value	String	**Definition** Value of a field in a sample log. **Range** N/A

Table 6-245 Processor

Parameter	Type	Description
type	String	**Definition** Structuring parsing type. The values are as follows: • **processor_regex**: regular expression • **processor_split_string**: delimiter • **processor_json**: JSON • **processor_gotime**: custom time type • **processor_filter_regex**: log filtering • **processor_drop**: type of fields to be deleted • **processor_rename**: type of fields to be modified **Range** N/A
detail	**Detail** object	**Definition** Structuring parsing configuration information.

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Table 6-246 Detail

Parameter	Type	Description
source_key	String	**Definition** Original field for storing log content before log structuring parsing. The default value is **content**. **Range** N/A
regex	String	**Definition** Regular expression. Regular expression used to match logs. **Range** N/A
keys	Array of strings	**Definition** Name of an extracted field. Set a corresponding field name for the extracted log content.
multi_line_regex	String	**Definition** First line regular expression. **Range** N/A
keep_source	Boolean	**Definition** Whether to upload raw logs. **Range** **true**: retains raw logs. **false**: does not retain raw logs.
keep_source_if_parse_error	Boolean	**Definition** Whether to upload logs that fail to be parsed. **Range** **true**: uploads logs that fail to be parsed. **false**: does not upload logs that fail to be parsed.
split_sep	String	**Definition** Delimiters. Set delimiters based on the log content, for example, vertical bar (|). **Range** N/A

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Parameter	Type	Description
split_type	String	**Definition** Delimiter type. The value can be **char** (single character), **special_char** (invisible characters), or **string**. **Range** N/A
fields	Map<String,String>	**Definition** Field name and value to be added, in the key-value pair format. You can add multiple key-value pairs.
drop_keys	Array of strings	**Definition** List of discarded fields.
source_keys	Array of strings	**Definition** Original field to be renamed.
dest_keys	Array of strings	**Definition** Renamed field.
expand_depth	Integer	**Definition** Depth of JSON expansion. The default value is **0**, indicating that there is no limit. **1** indicates the one level, and so on. **Range** N/A
expand_connector	String	**Definition** Connector for JSON expansion. The default value is a period (.). **Range** N/A
source_format	String	**Definition** Format of the original time. **Range** N/A
source_value	String	**Definition** Field value of the original time. **Range** N/A

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Parameter	Type	Description
set_time	Boolean	**Definition** Whether to set the parsed time as the log time. **Range** N/A
include	Map<String,String>	**Definition** Log filtering whitelist rule, in the format of key-value pairs. Each key indicates a log field and must be unique, with a maximum of 256 characters. The corresponding value is a regular expression that specifies the filtering criteria.
exclude	Map<String,String>	**Definition** Log filtering blacklist rule, in the format of key-value pairs. Each key indicates a log field and must be unique, with a maximum of 256 characters. The corresponding value is a regular expression that specifies the filtering criteria.

Status code: 400

Table 6-247 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

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Table 6-248 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Delete a log ingestion configuration.

```
DELETE https://{endpoint}/v3/{project_id}/lts/access-config

/v3/{project_id}/lts/access-config
{"access_config_id_list":["xxxx","xxxx"]}
```

Example Responses

Status code: 200

Ingestion configurations deleted.

```
{
  "result" : [ {
    "access_config_detail" : {
      "black_paths" : [ "/wjy/hei/tesxxx", "/wjy/hei/tesxxx" ],
      "format" : {
        "single" : {
          "mode" : "wildcard",
          "value" : "1111"
        }
      },
      "paths" : [ "/wjy/tesxxx", "/wjy/texxx", "/wjyxxxxx" ],
      "windows_log_info" : {
        "categorys" : [ "System", "Application", "Security", "Setup" ],
        "event_level" : [ "information", "warning", "error", "critical", "verbose" ],
        "time_offset" : {
          "offset" : 168,
          "unit" : "hour"
        }
      }
    },
    "access_config_id" : "aa58d29e-21a9-4761-ba16-8xxxxx",
    "access_config_name" : "CollectionWjyxxxxxt2",
    "access_config_tag" : [ {
      "key" : "xxx",
      "value" : "xxx"
    }, {
      "key" : "xxx1",
      "value" : "xxx1"
    } ],
```

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```
    "access_config_type" : "AGENT",
    "create_time" : 1635043645628,
    "host_group_info" : {
      "host_group_id_list" : [ "de4dbed4-a3bc-4877-a7ee-0xxxxxx6" ]
    },
    "log_info" : {
      "log_group_id" : "9a7e2183-2d6d-4732-9a9b-e89xxxxx0",
      "log_group_name" : "lts-groupxxxxxka",
      "log_stream_id" : "c4de0538-53e6-41fd-b951-a8xxxxx58d7",
      "log_stream_name" : "lts-topic-txxxxx"
    }
  } ],
  "total" : 1
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.1807",
  "error_msg" : "Invalid access config id"
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0010",
  "error_msg" : "The system encountered an internal error"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Delete a log ingestion configuration.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class DeleteAccessConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
```

```
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

    LtsClient client = LtsClient.newBuilder()
            .withCredential(auth)
            .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
            .build();
    DeleteAccessConfigRequest request = new DeleteAccessConfigRequest();
    try {
        DeleteAccessConfigResponse response = client.deleteAccessConfig(request);
        System.out.println(response.toString());
    } catch (ConnectionException e) {
        e.printStackTrace();
    } catch (RequestTimeoutException e) {
        e.printStackTrace();
    } catch (ServiceResponseException e) {
        e.printStackTrace();
        System.out.println(e.getHttpStatusCode());
        System.out.println(e.getRequestId());
        System.out.println(e.getErrorCode());
        System.out.println(e.getErrorMsg());
    }
  }
}
```

Python

Delete a log ingestion configuration.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteAccessConfigRequest()
        response = client.delete_access_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Delete a log ingestion configuration.

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```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteAccessConfigRequest{}
    response, err := client.DeleteAccessConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Ingestion configurations deleted.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

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6.5.4 Creating a Log Ingestion Configuration

Function

This API is used to create a log ingestion configuration.

Calling Method

For details, see **Calling APIs**.

URI

POST /v3/{project_id}/lts/access-config

Table 6-249 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A

Request Parameters

Table 6-250 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-251 Request body parameters

Parameter	Mandatory	Type	Description
access_config_name	Yes	String	**Definition** Log ingestion configuration name. **Range** N/A
access_config_type	Yes	String	**Definition** Log ingestion configuration type. **Range** • **AGENT**: ECS text log ingestion. • **K8S_CCE**: CCE application log ingestion.
access_config_detail	Yes	**AccessConfigDeatilCreate** object	**Definition** Log ingestion configuration details.
log_info	Yes	**AccessConfigBaseLogInfoCreate** object	**Definition** Log stream details of the log ingestion configuration.
host_group_info	No	**AccessConfigHostGroupIdListCreate** object	**Definition** Host group ID list of the log ingestion configuration.

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Parameter	Mandatory	Type	Description
access_config_tag	No	Array of accessConfigTag objects	**Definition** Label information of the log ingestion configuration.
binary_collect	No	Boolean	**Definition** Whether to collect binary data. **Range** • **true**: collects binary data. • **false**: does not collect binary data.
log_split	No	Boolean	**Definition** Whether to split logs. **Range** • **true**: splits logs. • **false**: does not split logs.
cluster_id	No	String	**Definition** CCE cluster ID. **Range** N/A
incremental_collect	No	Boolean	**Definition** Whether to enable incremental collection. **Range** **true**: collects new log data. **false**: collects all log data.
encoding_format	No	String	**Definition** Encoding format. The default format is UTF-8. **Range** N/A

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Parameter	Mandatory	Type	Description
processor_type	No	String	**Definition** ICAgent structuring parsing type. **Range** • **SINGLE_LINE** • **MULTI_LINE** • **REGEX** • **MULTI_REGEX** • **SPLIT** • **JSON** • **NGINX** • **COMPOSE** • **ORC**
demo_log	No	String	**Definition** Sample log event. **Range** N/A
demo_fields	No	Array of **DemoFieldAccess** objects	**Definition** Parsing fields of the sample log event.
processors	No	Array of **Processor** objects	**Definition** ICAgent structuring parser.
application_id	No	String	**Definition** ServiceStage application ID. **Range** N/A
environment_id	No	String	**Definition** ServiceStage environment ID. **Range** N/A
component_id	No	Array of strings	**Definition** ServiceStage component ID list.

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Parameter	Mandatory	Type	Description
access_config_type_source	No	String	**Definition** Self-built software source of log ingestion. **Range** • **ECS** • **CCE** • **BMS** • **K8S** • **ServiceStageHost** • **ServiceStage**
recursive_depth	No	Integer	**Definition** Maximum recursion depth of a collection path. **Range** N/A

Table 6-252 AccessConfigDeatilCreate

Parameter	Mandatory	Type	Description
paths	No	Array of strings	**Definition** Collection paths. • A path must start with a slash (/) or a letter followed by a colon and a backslash (for example, C:\). • A path cannot contain only slashes (/). The following special characters are not allowed: <>'|" • A path cannot start with /** or /*. • Only one double asterisk (**) can be contained in a path. • The container path and host path are mandatory for the CCE type and are not mandatory for the standard output.

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Parameter	Mandatory	Type	Description
black_paths	No	Array of strings	**Definition** Collection blacklist paths. • A path must start with a slash (/) or a letter followed by a colon and a backslash (for example, C:\). • A path cannot contain only slashes (/). The following special characters are not allowed: <>'|" • A path cannot start with /** or /*. • Only one double asterisk (**) can be contained in a path.
format	Yes	**AccessConfigFormatCreate** object	**Definition** Log format information.
windows_log_info	No	**AccessConfigWindowsLogInfoCreate** object	**Definition** Windows event log information in a log ingestion configuration.
stdout	No	Boolean	**Definition** Whether to enable container standard output collection in a CCE application log ingestion configuration. **Range** • **true**: Container standard output collection is enabled. • **false**: Container standard output collection is disabled.

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Parameter	Mandatory	Type	Description
stderr	No	Boolean	**Definition** Whether to enable container standard error collection in a CCE application log ingestion configuration. **Range** • **true**: Container standard error collection is enabled. • **false**: Container standard error collection is disabled.
pathType	No	String	**Definition** Data source type. This parameter is available only for CCE application log ingestion. **Range** • **HOST_FILE**: node file type • **CONTAINER_STDOUT**: container standard output • **CONTAINER_FILE**: container file path • **K8S_EVENT**: Kubernetes event
namespaceRegex	No	String	**Definition** Regular expression used to match Kubernetes namespaces by name. LTS will collect logs from containers within those matched namespaces. To collect logs of all namespaces, leave this parameter empty. This parameter is available only for CCE application log ingestion. **Range** N/A

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Parameter	Mandatory	Type	Description
podNameRegex	No	String	**Definition** Regular expression used to match Kubernetes pods by name. LTS will collect logs from containers within those matched pods. To collect logs of all pods, leave this parameter empty. This parameter is available only for CCE application log ingestion. **Range** N/A
containerNameRegex	No	String	**Definition** Regular expression used to match Kubernetes containers by name. Kubernetes container names are defined in **spec.containers**. LTS will collect logs from those matched containers. To collect logs of all containers, leave this parameter empty. This parameter is available only for CCE application log ingestion. **Range** N/A

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Parameter	Mandatory	Type	Description
includeLabels	No	Map<String,String>	**Definition** Container label whitelist. When configuring CCE application log ingestion, you can specify containers whose logs are to be collected by adding container label whitelists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. ● *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. ● *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their container labels are matched. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their container labels are matched. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.

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Parameter	Mandatory	Type	Description
excludeLabels	No	Map<String,String>	**Definition** Container label blacklist. When configuring CCE application log ingestion, you can specify containers whose logs are not to be collected by adding container label blacklists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. ● *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. ● *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their container labels are excluded. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their container labels are excluded. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.

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Parameter	Mandatory	Type	Description
includeEnvs	No	Map<String,String>	**Definition** Environment variable whitelist. When configuring CCE application log ingestion, you can specify containers whose logs are to be collected by adding environment variable whitelists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. ● *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. ● *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their environment variables are matched. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their environment variables are matched. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.

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Parameter	Mandatory	Type	Description
excludeEnvs	No	Map<String,String>	**Definition** Environment variable blacklist. When configuring CCE application log ingestion, you can specify containers whose logs are not to be collected by adding environment variable blacklists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. • *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. • *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their environment variables are excluded. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their environment variables are excluded. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.
logLabels	No	Map<String,String>	**Definition** Container label. When configuring CCE application log ingestion, you can use this parameter to add container label fields to logs. For example, if you set **app** as the LabelKey and **app_alias** as the LabelValue, when a container's labels contain **app=lts**, the field **{app_alias:lts}** will be added to the logs of that container.

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Parameter	Mandatory	Type	Description
logEnvs	No	Map<String,String>	**Definition** Environment variable. When configuring CCE application log ingestion, you can use this parameter to add environment variable fields to logs. For example, if you set **app** as the environment variable key and **app_alias** as the value, when the Kubernetes environment variables contain **app=lts**, **{app_alias:lts}** will be added to the Kubernetes logs.
includeK8sLabels	No	Map<String,String>	**Definition** Kubernetes label whitelist. When configuring CCE application log ingestion, you can specify containers whose logs are to be collected by adding Kubernetes label whitelists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. • *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. • *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their Kubernetes labels are matched. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their Kubernetes labels are matched. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.

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Parameter	Mandatory	Type	Description
excludeK8sLabels	No	Map<String,String>	**Definition** Kubernetes label blacklist. When configuring CCE application log ingestion, you can specify containers whose logs are not to be collected by adding Kubernetes label blacklists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. • *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. • *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their Kubernetes labels are excluded. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their Kubernetes labels are excluded. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.
logK8s	No	Map<String,String>	**Definition** Kubernetes label. When configuring CCE application log ingestion, you can use this parameter to add Kubernetes label fields to logs. For example, if you set **app** as the LabelKey and **app_alias** as the LabelValue, when a container's labels contain **app=lts**, the field **{app_alias:lts}** will be added to the logs of that container.

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Parameter	Mandatory	Type	Description
repeat_collect	No	Boolean	**Definition** Whether repeated file collection is allowed. **Range** • **true**: One host log file can be collected to multiple log streams. • **false**: Each collection path must be unique. That is, the same log file in the same host cannot be collected to different log streams.
system_fields	No	Array of strings	**Definition** System built-in fields. When configuring a log ingestion rule, you can specify system fields to include in the tag data of each log reported. If this parameter is modified, the original configuration will be overwritten. • The system fields for host log files are **hostName**, **hostId**, **hostIP**, **pathFile**, **hostIPv6**, **category**, **collectTime**, and **__host_group__**. • The system fields for Kubernetes cluster container log files are **hostName**, **hostId**, **hostIP**, **pathFile**, **hostIPv6**, **clusterId**, **podName**, **appName**, **containerName**, **nameSpace**, **category**, **collectTime**, **__host_group__**, **serviceID**, **podIp**, **clusterName**, **workloadType**, and **__image_name__**.

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Parameter	Mandatory	Type	Description
custom_key_value	No	Map<String,String>	**Definition** Custom key-value pairs. When configuring log ingestion, you can configure up to 20 custom key-value pairs to be included as fields in the tag data of each log reported. If this parameter is modified, the original configuration will be overwritten. ● *Key*: Enter up to 128 characters, including letters, digits, underscores (_), and hyphens (-). ● *Value*: Enter up to 1,024 characters.
includeLabelsLogical	No	String	**Definition** Logic for multiple container label whitelists, which determines how the whitelists are applied. The value can be **AND** (all whitelists must be met) or **OR** (default value; any whitelist is met). **Range** ● AND ● OR
excludeLabelsLogical	No	String	**Definition** Logic for multiple container label blacklists, which determines how the blacklists are applied. The value can be **AND** (all blacklists must be met) or **OR** (default value; any blacklist is met). **Range** ● AND ● OR

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Parameter	Mandatory	Type	Description
includeK8sLabelsLogical	No	String	**Definition** Logic for multiple Kubernetes label whitelists, which determines how the whitelists are applied. The value can be **AND** (all whitelists must be met) or **OR** (default value; any whitelist is met). **Range** • AND • OR
excludeK8sLabelsLogical	No	String	**Definition** Logic for multiple Kubernetes label blacklists, which determines how the blacklists are applied. The value can be **AND** (all blacklists must be met) or **OR** (default value; any blacklist is met). **Range** • AND • OR
includeEnvsLogical	No	String	**Definition** Logic for multiple environment variable whitelists, which determines how the whitelists are applied. The value can be **AND** (all whitelists must be met) or **OR** (default value; any whitelist is met). **Range** • AND • OR

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Parameter	Mandatory	Type	Description
excludeEnvsLogical	No	String	**Definition** Logic for multiple environment variable blacklists, which determines how the blacklists are applied. The value can be **AND** (all blacklists must be met) or **OR** (default value; any blacklist is met). **Range** • AND • OR

Table 6-253 AccessConfigFormatCreate

Parameter	Mandatory	Type	Description
single	No	**AccessConfigFormatSingleCreate** object	**Definition** Single-line log. Each log line is displayed as a separate log event on the LTS console.
multi	No	**AccessConfigFormatMutilCreate** object	**Definition** Multi-line log. Multiple consecutive log lines are displayed as one log event on the LTS console.

Table 6-254 AccessConfigFormatSingleCreate

Parameter	Mandatory	Type	Description
mode	No	String	**Definition** Single-line log collection mode. **Range** • **system**: system time • **wildcard**: time wildcard

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Parameter	Mandatory	Type	Description
value	No	String	**Definition** Log time. • If **mode** is **system**, enter the current timestamp for **value**. • If **mode** is set to **wildcard**, enter a time wildcard for **value**. When a time wildcard is used to match the log printing time displayed at the beginning of a log event: If the time format in a log event is **2019-01-01 23:59:59**, the time wildcard is **YYYY-MM-DD hh:mm:ss**. If the time format in a log event is **19-1-1 23:59:59**, the time wildcard is **YY-M-D hh:mm:ss**. **Range** N/A

Table 6-255 AccessConfigFormatMutilCreate

Parameter	Mandatory	Type	Description
mode	No	String	**Definition** Multi-line log collection mode. **Range** • **time**: log time • **regular**: regular expression mode

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Parameter	Mandatory	Type	Description
value	No	String	**Definition** Log time. • If **mode** is **system**, enter the current timestamp for **value**. • If **mode** is set to **wildcard**, enter a time wildcard for **value**. When a time wildcard is used to match the log printing time displayed at the beginning of a log event: If the time format in a log event is **2019-01-01 23:59:59**, the time wildcard is **YYYY-MM-DD hh:mm:ss**. If the time format in a log event is **19-1-1 23:59:59**, the time wildcard is **YY-M-D hh:mm:ss**. **Range** N/A

Table 6-256 AccessConfigWindowsLogInfoCreate

Parameter	Mandatory	Type	Description
categorys	Yes	Array of strings	**Definition** Type of Windows event logs to be collected. There are four types: • **Application** • **System** • **Security** • **Setup**: start

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Parameter	Mandatory	Type	Description
time_offset	Yes	AccessConfigTimeOffset object	**Definition** Offset of the first collection time. This parameter is used to correct the time deviation or calculate the relative time. If you set this parameter to **7**, logs generated within the seven days before the collection start time are collected. This offset takes effect only for the first collection to ensure that the logs are not repeatedly collected.
event_level	Yes	Array of strings	**Definition** Event level. You can filter Windows events based on their levels. This function is available only to Windows Vista or later. There are five levels: • **information** • **warning** • **error** • **critical** • **verbose**

Table 6-257 AccessConfigTimeOffset

Parameter	Mandatory	Type	Description
offset	Yes	Long	**Definition** Time offset. • When **unit** is **day**, the value of **offset** ranges from 1 to 7. • When **unit** is **hour**, the value of **offset** ranges from 1 to 168. • When **unit** is **sec**, the value of **offset** ranges from 1 to 604,800. **Range** N/A

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Parameter	Mandatory	Type	Description
unit	Yes	String	**Definition** Unit of the offset time. • **day** • **hour** • **sec** **Range** N/A

Table 6-258 AccessConfigBaseLogInfoCreate

Parameter	Mandatory	Type	Description
log_group_id	Yes	String	**Definition** Log group ID. **Range** N/A
log_stream_id	Yes	String	**Definition** Log stream ID. **Range** N/A

Table 6-259 AccessConfigHostGroupIdListCreate

Parameter	Mandatory	Type	Description
host_group_id_list	Yes	Array of strings	**Definition** Host group ID list.

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Table 6-260 accessConfigTag

Parameter	Mandatory	Type	Description
key	No	String	**Definition** Tag key. **Constraints** • Each tag key must be unique. • A tag is a key-value pair. Each key is paired with its corresponding value. **Range** • A tag key can contain letters, digits, spaces, and special characters (_.:=+-@), but cannot start or end with a space or start with *sys*. • A tag key can contain up to 128 characters. **Default Value** N/A
value	No	String	**Definition** Tag value. **Constraints** A tag is a key-value pair. Each key is paired with its corresponding value. **Range** • A tag value can contain letters, digits, spaces, and special characters (_.:=+-@). • A tag value can contain up to 255 characters. **Default Value** N/A

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Table 6-261 DemoFieldAccess

Parameter	Mandatory	Type	Description
field_name	No	String	**Definition** Parsing fields of the sample log event. **Range** N/A
field_value	No	String	**Definition** Value of a field in a sample log. **Range** N/A

Table 6-262 Processor

Parameter	Mandatory	Type	Description
type	No	String	**Definition** Structuring parsing type. The values are as follows: • **processor_regex**: regular expression • **processor_split_string**: delimiter • **processor_json**: JSON • **processor_gotime**: custom time type • **processor_filter_regex**: log filtering • **processor_drop**: type of fields to be deleted • **processor_rename**: type of fields to be modified **Range** N/A
detail	No	**Detail** object	**Definition** Structuring parsing configuration information.

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Table 6-263 Detail

Parameter	Mandatory	Type	Description
source_key	No	String	**Definition** Original field for storing log content before log structuring parsing. The default value is **content**. **Range** N/A
regex	No	String	**Definition** Regular expression. Regular expression used to match logs. **Range** N/A
keys	No	Array of strings	**Definition** Name of an extracted field. Set a corresponding field name for the extracted log content.
multi_line_regex	No	String	**Definition** First line regular expression. **Range** N/A
keep_source	No	Boolean	**Definition** Whether to upload raw logs. **Range** **true**: retains raw logs. **false**: does not retain raw logs.
keep_source_if_parse_error	No	Boolean	**Definition** Whether to upload logs that fail to be parsed. **Range** **true**: uploads logs that fail to be parsed. **false**: does not upload logs that fail to be parsed.

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Parameter	Mandatory	Type	Description
split_sep	No	String	**Definition** Delimiters. Set delimiters based on the log content, for example, vertical bar (|). **Range** N/A
split_type	No	String	**Definition** Delimiter type. The value can be **char** (single character), **special_char** (invisible characters), or **string**. **Range** N/A
fields	No	Map<String,String>	**Definition** Field name and value to be added, in the key-value pair format. You can add multiple key-value pairs.
drop_keys	No	Array of strings	**Definition** List of discarded fields.
source_keys	No	Array of strings	**Definition** Original field to be renamed.
dest_keys	No	Array of strings	**Definition** Renamed field.
expand_depth	No	Integer	**Definition** Depth of JSON expansion. The default value is **0**, indicating that there is no limit. **1** indicates the one level, and so on. **Range** N/A
expand_connector	No	String	**Definition** Connector for JSON expansion. The default value is a period (.). **Range** N/A

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Parameter	Mandatory	Type	Description
source_format	No	String	**Definition** Format of the original time. **Range** N/A
source_value	No	String	**Definition** Field value of the original time. **Range** N/A
set_time	No	Boolean	**Definition** Whether to set the parsed time as the log time. **Range** N/A
include	No	Map<String,String>	**Definition** Log filtering whitelist rule, in the format of key-value pairs. Each key indicates a log field and must be unique, with a maximum of 256 characters. The corresponding value is a regular expression that specifies the filtering criteria.
exclude	No	Map<String,String>	**Definition** Log filtering blacklist rule, in the format of key-value pairs. Each key indicates a log field and must be unique, with a maximum of 256 characters. The corresponding value is a regular expression that specifies the filtering criteria.

Response Parameters

Status code: 200

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Table 6-264 Response body parameters

Parameter	Type	Description
access_config_id	String	**Definition** Log ingestion configuration ID. **Range** N/A
access_config_name	String	**Definition** Log ingestion configuration name. **Range** N/A
access_config_type	String	**Definition** Log ingestion configuration type. **Range** • **AGENT**: ECS text log ingestion. • **K8S_CCE**: CCE application log ingestion.
create_time	Long	**Definition** Time when the log ingestion configuration was created. **Range** N/A
access_config_detail	**AccessConfigDeatilCreate** object	**Definition** Log ingestion configuration details.
log_info	**AccessConfigQueryLogInfo** object	**Definition** Log stream details of the log ingestion configuration.
host_group_info	**AccessConfigHostGroupIdList** object	**Definition** Host group ID list of the log ingestion configuration.
access_config_tag	Array of **accessConfigTagResp** objects	**Definition** Label information of the log ingestion configuration.
log_split	Boolean	**Definition** Whether to split logs. **Range** • **true**: splits logs. • **false**: does not split logs.

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Parameter	Type	Description
binary_collect	Boolean	**Definition** Whether to collect binary data. **Range** • **true**: collects binary data. • **false**: does not collect binary data.
cluster_id	String	**Definition** CCE cluster ID. **Range** N/A
encoding_format	String	**Definition** Encoding format. The default format is UTF-8. **Range** N/A
incremental_collect	Boolean	**Definition** Whether to enable incremental collection. **Range** • **true**: collects new log data. • **false**: collects all log data.
processor_type	String	**Definition** ICAgent structuring parsing type. **Range** • **SINGLE_LINE** • **MULTI_LINE** • **REGEX** • **MULTI_REGEX** • **SPLIT** • **JSON** • **NGINX** • **COMPOSE** • **ORC**
demo_log	String	**Definition** Sample log event. **Range** N/A

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Parameter	Type	Description
demo_fields	Array of **DemoFieldAccess** objects	**Definition** Parsing fields of the sample log event.
processors	Array of **Processor** objects	**Definition** ICAgent structuring parser.
log_split_size	Integer	**Definition** Size at which to split a log file. **Range** N/A
application_id	String	**Definition** ServiceStage application ID. **Range** N/A
environment_id	String	**Definition** ServiceStage environment ID. **Range** N/A
component_id	Array of strings	**Definition** ServiceStage component ID list.
recursive_depth	Integer	**Definition** Maximum recursion depth of a collection path. **Range** N/A
access_config_type_source	String	**Definition** Self-built software source of log ingestion. **Range** • **ECS** • **CCE** • **BMS** • **K8S** • **ServiceStageHost** • **ServiceStage**

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Table 6-265 AccessConfigDeatilCreate

Parameter	Type	Description
paths	Array of strings	**Definition** Collection paths. • A path must start with a slash (/) or a letter followed by a colon and a backslash (for example, C:\). • A path cannot contain only slashes (/). The following special characters are not allowed: <>'|" • A path cannot start with /** or /*. • Only one double asterisk (**) can be contained in a path. • The container path and host path are mandatory for the CCE type and are not mandatory for the standard output.
black_paths	Array of strings	**Definition** Collection blacklist paths. • A path must start with a slash (/) or a letter followed by a colon and a backslash (for example, C:\). • A path cannot contain only slashes (/). The following special characters are not allowed: <>'|" • A path cannot start with /** or /*. • Only one double asterisk (**) can be contained in a path.
format	**AccessConfigFormatCreate** object	**Definition** Log format information.
windows_log_info	**AccessConfigWindowsLogInfoCreate** object	**Definition** Windows event log information in a log ingestion configuration.
stdout	Boolean	**Definition** Whether to enable container standard output collection in a CCE application log ingestion configuration. **Range** • **true**: Container standard output collection is enabled. • **false**: Container standard output collection is disabled.

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Parameter	Type	Description
stderr	Boolean	**Definition** Whether to enable container standard error collection in a CCE application log ingestion configuration. **Range** • **true**: Container standard error collection is enabled. • **false**: Container standard error collection is disabled.
pathType	String	**Definition** Data source type. This parameter is available only for CCE application log ingestion. **Range** • **HOST_FILE**: node file type • **CONTAINER_STDOUT**: container standard output • **CONTAINER_FILE**: container file path • **K8S_EVENT**: Kubernetes event
namespaceRegex	String	**Definition** Regular expression used to match Kubernetes namespaces by name. LTS will collect logs from containers within those matched namespaces. To collect logs of all namespaces, leave this parameter empty. This parameter is available only for CCE application log ingestion. **Range** N/A
podNameRegex	String	**Definition** Regular expression used to match Kubernetes pods by name. LTS will collect logs from containers within those matched pods. To collect logs of all pods, leave this parameter empty. This parameter is available only for CCE application log ingestion. **Range** N/A

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Parameter	Type	Description
containerNameRegex	String	**Definition** Regular expression used to match Kubernetes containers by name. Kubernetes container names are defined in **spec.containers**. LTS will collect logs from those matched containers. To collect logs of all containers, leave this parameter empty. This parameter is available only for CCE application log ingestion. **Range** N/A
includeLabels	Map<String,String>	**Definition** Container label whitelist. When configuring CCE application log ingestion, you can specify containers whose logs are to be collected by adding container label whitelists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. ● *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. ● *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their container labels are matched. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their container labels are matched. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.

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Parameter	Type	Description
excludeLabels	Map<String,String>	**Definition** Container label blacklist. When configuring CCE application log ingestion, you can specify containers whose logs are not to be collected by adding container label blacklists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. • *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. • *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their container labels are excluded. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their container labels are excluded. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.

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Parameter	Type	Description
includeEnvs	Map<String,String>	**Definition** Environment variable whitelist. When configuring CCE application log ingestion, you can specify containers whose logs are to be collected by adding environment variable whitelists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. ● *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. ● *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their environment variables are matched. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their environment variables are matched. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.

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Parameter	Type	Description
excludeEnvs	Map<String,String>	**Definition** Environment variable blacklist. When configuring CCE application log ingestion, you can specify containers whose logs are not to be collected by adding environment variable blacklists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. ● *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. ● *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their environment variables are excluded. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their environment variables are excluded. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.
logLabels	Map<String,String>	**Definition** Container label. When configuring CCE application log ingestion, you can use this parameter to add container label fields to logs. For example, if you set **app** as the LabelKey and **app_alias** as the LabelValue, when a container's labels contain **app=lts**, the field **{app_alias:lts}** will be added to the logs of that container.
logEnvs	Map<String,String>	**Definition** Environment variable. When configuring CCE application log ingestion, you can use this parameter to add environment variable fields to logs. For example, if you set **app** as the environment variable key and **app_alias** as the value, when the Kubernetes environment variables contain **app=lts**, **{app_alias:lts}** will be added to the Kubernetes logs.

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Parameter	Type	Description
includeK8sLabels	Map<String,String>	**Definition** Kubernetes label whitelist. When configuring CCE application log ingestion, you can specify containers whose logs are to be collected by adding Kubernetes label whitelists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. ● *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. ● *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their Kubernetes labels are matched. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their Kubernetes labels are matched. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.

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Parameter	Type	Description
excludeK8sLabels	Map<String,String>	**Definition** Kubernetes label blacklist. When configuring CCE application log ingestion, you can specify containers whose logs are not to be collected by adding Kubernetes label blacklists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. • *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. • *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their Kubernetes labels are excluded. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their Kubernetes labels are excluded. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.
logK8s	Map<String,String>	**Definition** Kubernetes label. When configuring CCE application log ingestion, you can use this parameter to add Kubernetes label fields to logs. For example, if you set **app** as the LabelKey and **app_alias** as the LabelValue, when a container's labels contain **app=lts**, the field **{app_alias:lts}** will be added to the logs of that container.
repeat_collect	Boolean	**Definition** Whether repeated file collection is allowed. **Range** • **true**: One host log file can be collected to multiple log streams. • **false**: Each collection path must be unique. That is, the same log file in the same host cannot be collected to different log streams.

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Parameter	Type	Description
system_fields	Array of strings	**Definition** System built-in fields. When configuring a log ingestion rule, you can specify system fields to include in the tag data of each log reported. If this parameter is modified, the original configuration will be overwritten. ● The system fields for host log files are **hostName**, **hostId**, **hostIP**, **pathFile**, **hostIPv6**, **category**, **collectTime**, and **__host_group__**. ● The system fields for Kubernetes cluster container log files are **hostName**, **hostId**, **hostIP**, **pathFile**, **hostIPv6**, **clusterId**, **podName**, **appName**, **containerName**, **nameSpace**, **category**, **collectTime**, **__host_group__**, **serviceID**, **podIp**, **clusterName**, **workloadType**, and **__image_name__**.
custom_key_value	Map<String,String>	**Definition** Custom key-value pairs. When configuring log ingestion, you can configure up to 20 custom key-value pairs to be included as fields in the tag data of each log reported. If this parameter is modified, the original configuration will be overwritten. ● *Key*: Enter up to 128 characters, including letters, digits, underscores (_), and hyphens (-). ● *Value*: Enter up to 1,024 characters.
includeLabelsLogical	String	**Definition** Logic for multiple container label whitelists, which determines how the whitelists are applied. The value can be **AND** (all whitelists must be met) or **OR** (default value; any whitelist is met). **Range** ● AND ● OR

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Parameter	Type	Description
excludeLabelsLogical	String	**Definition** Logic for multiple container label blacklists, which determines how the blacklists are applied. The value can be **AND** (all blacklists must be met) or **OR** (default value; any blacklist is met). **Range** ● AND ● OR
includeK8sLabelsLogical	String	**Definition** Logic for multiple Kubernetes label whitelists, which determines how the whitelists are applied. The value can be **AND** (all whitelists must be met) or **OR** (default value; any whitelist is met). **Range** ● AND ● OR
excludeK8sLabelsLogical	String	**Definition** Logic for multiple Kubernetes label blacklists, which determines how the blacklists are applied. The value can be **AND** (all blacklists must be met) or **OR** (default value; any blacklist is met). **Range** ● AND ● OR
includeEnvsLogical	String	**Definition** Logic for multiple environment variable whitelists, which determines how the whitelists are applied. The value can be **AND** (all whitelists must be met) or **OR** (default value; any whitelist is met). **Range** ● AND ● OR

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Parameter	Type	Description
excludeEnvsLogical	String	**Definition** Logic for multiple environment variable blacklists, which determines how the blacklists are applied. The value can be **AND** (all blacklists must be met) or **OR** (default value; any blacklist is met). **Range** • AND • OR

Table 6-266 AccessConfigFormatCreate

Parameter	Type	Description
single	**AccessConfigFormatSingleCreate** object	**Definition** Single-line log. Each log line is displayed as a separate log event on the LTS console.
multi	**AccessConfigFormatMutilCreate** object	**Definition** Multi-line log. Multiple consecutive log lines are displayed as one log event on the LTS console.

Table 6-267 AccessConfigFormatSingleCreate

Parameter	Type	Description
mode	String	**Definition** Single-line log collection mode. **Range** • **system**: system time • **wildcard**: time wildcard

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Parameter	Type	Description
value	String	**Definition** Log time. • If **mode** is **system**, enter the current timestamp for **value**. • If **mode** is set to **wildcard**, enter a time wildcard for **value**. When a time wildcard is used to match the log printing time displayed at the beginning of a log event: If the time format in a log event is **2019-01-01 23:59:59**, the time wildcard is **YYYY-MM-DD hh:mm:ss**. If the time format in a log event is **19-1-1 23:59:59**, the time wildcard is **YY-M-D hh:mm:ss**. **Range** N/A

Table 6-268 AccessConfigFormatMutilCreate

Parameter	Type	Description
mode	String	**Definition** Multi-line log collection mode. **Range** • **time**: log time • **regular**: regular expression mode
value	String	**Definition** Log time. • If **mode** is **system**, enter the current timestamp for **value**. • If **mode** is set to **wildcard**, enter a time wildcard for **value**. When a time wildcard is used to match the log printing time displayed at the beginning of a log event: If the time format in a log event is **2019-01-01 23:59:59**, the time wildcard is **YYYY-MM-DD hh:mm:ss**. If the time format in a log event is **19-1-1 23:59:59**, the time wildcard is **YY-M-D hh:mm:ss**. **Range** N/A

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Table 6-269 AccessConfigWindowsLogInfoCreate

Parameter	Type	Description
categorys	Array of strings	**Definition** Type of Windows event logs to be collected. There are four types: • **Application** • **System** • **Security** • **Setup**: start
time_offset	**AccessConfigTimeOffset** object	**Definition** Offset of the first collection time. This parameter is used to correct the time deviation or calculate the relative time. If you set this parameter to **7**, logs generated within the seven days before the collection start time are collected. This offset takes effect only for the first collection to ensure that the logs are not repeatedly collected.
event_level	Array of strings	**Definition** Event level. You can filter Windows events based on their levels. This function is available only to Windows Vista or later. There are five levels: • **information** • **warning** • **error** • **critical** • **verbose**

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Table 6-270 AccessConfigTimeOffset

Parameter	Type	Description
offset	Long	**Definition** Time offset. • When **unit** is **day**, the value of **offset** ranges from 1 to 7. • When **unit** is **hour**, the value of **offset** ranges from 1 to 168. • When **unit** is **sec**, the value of **offset** ranges from 1 to 604,800. **Range** N/A
unit	String	**Definition** Unit of the offset time. • **day** • **hour** • **sec** **Range** N/A

Table 6-271 AccessConfigQueryLogInfo

Parameter	Type	Description
log_group_id	String	**Definition** Log group ID. **Range** N/A
log_stream_id	String	**Definition** Log stream ID. **Range** N/A
log_group_name	String	**Definition** Log group name. **Range** N/A

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Parameter	Type	Description
log_stream_name	String	**Definition** Log stream name. **Range** N/A

Table 6-272 AccessConfigHostGroupIdList

Parameter	Type	Description
host_group_id_list	Array of strings	**Definition** Host group ID list.

Table 6-273 accessConfigTagResp

Parameter	Type	Description
key	String	**Definition** Tag key. **Range** • A tag key can contain letters, digits, spaces, and special characters (_.:=+-@), but cannot start or end with a space or start with *sys*. • A tag key can contain up to 128 characters.
value	String	**Definition** Tag value. **Range** • A tag value can contain letters, digits, spaces, and special characters (_.:=+-@). • A tag value can contain up to 255 characters.

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Table 6-274 DemoFieldAccess

Parameter	Type	Description
field_name	String	**Definition** Parsing fields of the sample log event. **Range** N/A
field_value	String	**Definition** Value of a field in a sample log. **Range** N/A

Table 6-275 Processor

Parameter	Type	Description
type	String	**Definition** Structuring parsing type. The values are as follows: • **processor_regex**: regular expression • **processor_split_string**: delimiter • **processor_json**: JSON • **processor_gotime**: custom time type • **processor_filter_regex**: log filtering • **processor_drop**: type of fields to be deleted • **processor_rename**: type of fields to be modified **Range** N/A
detail	**Detail** object	**Definition** Structuring parsing configuration information.

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Table 6-276 Detail

Parameter	Type	Description
source_key	String	**Definition** Original field for storing log content before log structuring parsing. The default value is **content**. **Range** N/A
regex	String	**Definition** Regular expression. Regular expression used to match logs. **Range** N/A
keys	Array of strings	**Definition** Name of an extracted field. Set a corresponding field name for the extracted log content.
multi_line_regex	String	**Definition** First line regular expression. **Range** N/A
keep_source	Boolean	**Definition** Whether to upload raw logs. **Range** **true**: retains raw logs. **false**: does not retain raw logs.
keep_source_if_parse_error	Boolean	**Definition** Whether to upload logs that fail to be parsed. **Range** **true**: uploads logs that fail to be parsed. **false**: does not upload logs that fail to be parsed.
split_sep	String	**Definition** Delimiters. Set delimiters based on the log content, for example, vertical bar (|). **Range** N/A

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Parameter	Type	Description
split_type	String	**Definition** Delimiter type. The value can be **char** (single character), **special_char** (invisible characters), or **string**. **Range** N/A
fields	Map<String,String>	**Definition** Field name and value to be added, in the key-value pair format. You can add multiple key-value pairs.
drop_keys	Array of strings	**Definition** List of discarded fields.
source_keys	Array of strings	**Definition** Original field to be renamed.
dest_keys	Array of strings	**Definition** Renamed field.
expand_depth	Integer	**Definition** Depth of JSON expansion. The default value is **0**, indicating that there is no limit. **1** indicates the one level, and so on. **Range** N/A
expand_connector	String	**Definition** Connector for JSON expansion. The default value is a period (.). **Range** N/A
source_format	String	**Definition** Format of the original time. **Range** N/A
source_value	String	**Definition** Field value of the original time. **Range** N/A

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Parameter	Type	Description
set_time	Boolean	**Definition** Whether to set the parsed time as the log time. **Range** N/A
include	Map<String,String>	**Definition** Log filtering whitelist rule, in the format of key-value pairs. Each key indicates a log field and must be unique, with a maximum of 256 characters. The corresponding value is a regular expression that specifies the filtering criteria.
exclude	Map<String,String>	**Definition** Log filtering blacklist rule, in the format of key-value pairs. Each key indicates a log field and must be unique, with a maximum of 256 characters. The corresponding value is a regular expression that specifies the filtering criteria.

Status code: 400

Table 6-277 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

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Table 6-278 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

- Creating a log ingestion configuration (for CCE)

```
POST https://{endpoint}/v3/{project_id}/lts/access-config

{
  "access_config_name" : "myapinew322",
  "access_config_type" : "K8S_CCE",
  "access_config_detail" : {
    "pathType" : "CONTAINER_STDOUT",
    "stdout" : "true",
    "stderr" : "false",
    "format" : {
      "single" : {
        "mode" : "system",
        "value" : "1678969382000"
      }
    },
    "namespaceRegex" : "default",
    "podNameRegex" : "abc",
    "containerNameRegex" : "my",
    "includeLabels" : {
      "a" : "1"
    },
    "excludeLabels" : {
      "b" : "2"
    },
    "logLabels" : {
      "c" : "3"
    },
    "includeK8sLabels" : {
      "d" : "4"
    },
    "excludeK8sLabels" : {
      "e" : "5"
    },
    "logK8s" : {
      "f" : "6"
    },
    "includeEnvs" : {
      "g" : "7"
    },
    "excludeEnvs" : {
      "h" : "8"
    },
    "logEnvs" : {
```

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```
    "i" : "9"
  }
 },
 "log_info" : {
  "log_group_id" : "9575cb24-290c-478e-a5db-88d6d1dc513b",
  "log_stream_id" : "3581bee9-8698-476e-a0ba-b0f310ed99cf"
 },
 "host_group_info" : {
  "host_group_id_list" : [ "12b0bbd1-4eda-456b-a641-647aa66bdeab" ]
 },
 "access_config_tag" : [ {
  "key" : "my01",
  "value" : "001"
 }, {
  "key" : "my02",
  "value" : "002"
 } ],
 "binary_collect" : "false",
 "log_split" : "false"
}
```

- Creating a log ingestion configuration (for ECS)

```
POST https://{endpoint}/v3/{project_id}/lts/access-config

{
 "access_config_name" : "Tesxxx",
 "access_config_type" : "AGENT",
 "access_config_detail" : {
  "paths" : [ "/test/xxx", "/texxx" ],
  "black_paths" : [ "/testxxx", "/tesxxx" ],
  "format" : {
   "multi" : {
    "mode" : "time",
    "value" : "YYYY-MM-DD hh:mm:ss"
   }
  },
  "windows_log_info" : {
   "categorys" : [ "System", "Security", "Setup" ],
   "event_level" : [ "warning", "error", "critical", "verbose" ],
   "time_offset" : {
    "offset" : 111,
    "unit" : "hour"
   }
  }
 },
 "log_info" : {
  "log_group_id" : "b179326d-c3be-4217-a3d9-xxxx",
  "log_stream_id" : "020a6fa0-4740-4888-af06-98xxxxxx"
 },
 "host_group_info" : {
  "host_group_id_list" : [ "4ee44d4f-a72b-40cf-a3c7-1xxxxx" ]
 },
 "access_config_tag" : [ {
  "key" : "xxx",
  "value" : "xxx"
 }, {
  "key" : "xxx1",
  "value" : "xxx1"
 } ]
}
```

Example Responses

Status code: 200

The ingestion configuration is created.

```
{
 "access_config_detail" : {
```

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```
    "containerNameRegex" : "container-1",
    "format" : {
      "single" : {
        "mode" : "system",
        "value" : "1678969382000"
      }
    },
    "namespaceRegex" : "default",
    "pathType" : "container_stdout",
    "paths" : [ ],
    "podNameRegex" : "mystdout-6d7458d77c-rhjcc",
    "stderr" : true,
    "stdout" : true
  },
  "access_config_id" : "03b16999-95cf-453b-9668-7aa1fafa564e",
  "access_config_name" : "myapinew32Y",
  "access_config_tag" : [ {
    "key" : "my01",
    "value" : "001"
  }, {
    "key" : "my02",
    "value" : "002"
  } ],
  "access_config_type" : "K8S_CCE",
  "binary_collect" : true,
  "create_time" : 1685626665176,
  "log_info" : {
    "log_group_id" : "9575cb24-290c-478e-a5db-88d6d1dc513b",
    "log_group_name" : "my-group",
    "log_stream_id" : "eea03c27-e041-4bec-bd03-6afa10a6561a",
    "log_stream_name" : "lts-topic-cceapi"
  },
  "log_split" : true
}
```


Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.


```
{
  "error_code" : "LTS.1807",
  "error_msg" : "Invalid access config name"
}
```


Status code: 500

The server has received the request but encountered an internal error.


```
{
  "error_code" : "LTS.0010",
  "error_msg" : "The system encountered an internal error"
}
```


SDK Sample Code

The SDK sample code is as follows.

Java

- Creating a log ingestion configuration (for CCE)

  ```
  package com.huaweicloud.sdk.test;

  import com.huaweicloud.sdk.core.auth.ICredential;
  import com.huaweicloud.sdk.core.auth.BasicCredentials;
  import com.huaweicloud.sdk.core.exception.ConnectionException;
  import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
  ```

```
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;
import java.util.Map;
import java.util.HashMap;

public class CreateAccessConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateAccessConfigRequest request = new CreateAccessConfigRequest();
        CreateAccessConfigRequestBody body = new CreateAccessConfigRequestBody();
        List<AccessConfigTag> listbodyAccessConfigTag = new ArrayList<>();
        listbodyAccessConfigTag.add(
            new AccessConfigTag()
                .withKey("my01")
                .withValue("001")
        );
        listbodyAccessConfigTag.add(
            new AccessConfigTag()
                .withKey("my02")
                .withValue("002")
        );
        List<String> listHostGroupInfoHostGroupIdList = new ArrayList<>();
        listHostGroupInfoHostGroupIdList.add("12b0bbd1-4eda-456b-a641-647aa66bdeab");
        AccessConfigHostGroupIdListCreate hostGroupInfobody = new AccessConfigHostGroupIdListCreate();
        hostGroupInfobody.withHostGroupIdList(listHostGroupInfoHostGroupIdList);
        AccessConfigBaseLogInfoCreate logInfobody = new AccessConfigBaseLogInfoCreate();
        logInfobody.withLogGroupId("9575cb24-290c-478e-a5db-88d6d1dc513b")
            .withLogStreamId("3581bee9-8698-476e-a0ba-b0f310ed99cf");
        Map<String, String> listAccessConfigDetailLogK8s = new HashMap<>();
        listAccessConfigDetailLogK8s.put("f", "6");
        Map<String, String> listAccessConfigDetailExcludeK8sLabels = new HashMap<>();
        listAccessConfigDetailExcludeK8sLabels.put("e", "5");
        Map<String, String> listAccessConfigDetailIncludeK8sLabels = new HashMap<>();
        listAccessConfigDetailIncludeK8sLabels.put("d", "4");
        Map<String, String> listAccessConfigDetailLogEnvs = new HashMap<>();
        listAccessConfigDetailLogEnvs.put("i", "9");
        Map<String, String> listAccessConfigDetailLogLabels = new HashMap<>();
        listAccessConfigDetailLogLabels.put("c", "3");
        Map<String, String> listAccessConfigDetailExcludeEnvs = new HashMap<>();
        listAccessConfigDetailExcludeEnvs.put("h", "8");
        Map<String, String> listAccessConfigDetailIncludeEnvs = new HashMap<>();
        listAccessConfigDetailIncludeEnvs.put("g", "7");
        Map<String, String> listAccessConfigDetailExcludeLabels = new HashMap<>();
        listAccessConfigDetailExcludeLabels.put("b", "2");
```

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```
        Map<String, String> listAccessConfigDetailIncludeLabels = new HashMap<>();
        listAccessConfigDetailIncludeLabels.put("a", "1");
        AccessConfigFormatSingleCreate singleFormat = new AccessConfigFormatSingleCreate();
        singleFormat.withMode(AccessConfigFormatSingleCreate.ModeEnum.fromValue("system"))
            .withValue("1678969382000");
        AccessConfigFormatCreate formatAccessConfigDetail = new AccessConfigFormatCreate();
        formatAccessConfigDetail.withSingle(singleFormat);
        AccessConfigDeatilCreate accessConfigDetailbody = new AccessConfigDeatilCreate();
        accessConfigDetailbody.withFormat(formatAccessConfigDetail)
            .withStdout(true)
            .withStderr(false)
            .withPathType(AccessConfigDeatilCreate.PathTypeEnum.fromValue("CONTAINER_STDOUT"))
            .withNamespaceRegex("default")
            .withPodNameRegex("abc")
            .withContainerNameRegex("my")
            .withIncludeLabels(listAccessConfigDetailIncludeLabels)
            .withExcludeLabels(listAccessConfigDetailExcludeLabels)
            .withIncludeEnvs(listAccessConfigDetailIncludeEnvs)
            .withExcludeEnvs(listAccessConfigDetailExcludeEnvs)
            .withLogLabels(listAccessConfigDetailLogLabels)
            .withLogEnvs(listAccessConfigDetailLogEnvs)
            .withIncludeK8sLabels(listAccessConfigDetailIncludeK8sLabels)
            .withExcludeK8sLabels(listAccessConfigDetailExcludeK8sLabels)
            .withLogK8s(listAccessConfigDetailLogK8s);
        body.withLogSplit(false);
        body.withBinaryCollect(false);
        body.withAccessConfigTag(listbodyAccessConfigTag);
        body.withHostGroupInfo(hostGroupInfobody);
        body.withLogInfo(logInfobody);
        body.withAccessConfigDetail(accessConfigDetailbody);

body.withAccessConfigType(CreateAccessConfigRequestBody.AccessConfigTypeEnum.fromValue("K8S_C
CE"));
        body.withAccessConfigName("myapinew322");
        request.withBody(body);
        try {
            CreateAccessConfigResponse response = client.createAccessConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- Creating a log ingestion configuration (for ECS)

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateAccessConfigSolution {

    public static void main(String[] args) {
```

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```
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateAccessConfigRequest request = new CreateAccessConfigRequest();
        CreateAccessConfigRequestBody body = new CreateAccessConfigRequestBody();
        List<AccessConfigTag> listbodyAccessConfigTag = new ArrayList<>();
        listbodyAccessConfigTag.add(
            new AccessConfigTag()
                .withKey("xxx")
                .withValue("xxx")
        );
        listbodyAccessConfigTag.add(
            new AccessConfigTag()
                .withKey("xxx1")
                .withValue("xxx1")
        );
        List<String> listHostGroupInfoHostGroupIdList = new ArrayList<>();
        listHostGroupInfoHostGroupIdList.add("4ee44d4f-a72b-40cf-a3c7-1xxxxx");
        AccessConfigHostGroupIdListCreate hostGroupInfobody = new
AccessConfigHostGroupIdListCreate();
        hostGroupInfobody.withHostGroupIdList(listHostGroupInfoHostGroupIdList);
        AccessConfigBaseLogInfoCreate logInfobody = new AccessConfigBaseLogInfoCreate();
        logInfobody.withLogGroupId("b179326d-c3be-4217-a3d9-xxxx")
            .withLogStreamId("020a6fa0-4740-4888-af06-98xxxxxx");
        List<AccessConfigWindowsLogInfoCreate.EventLevelEnum> listWindowsLogInfoEventLevel = new
ArrayList<>();

listWindowsLogInfoEventLevel.add(AccessConfigWindowsLogInfoCreate.EventLevelEnum.fromValue("w
arning"));

listWindowsLogInfoEventLevel.add(AccessConfigWindowsLogInfoCreate.EventLevelEnum.fromValue("e
rror"));

listWindowsLogInfoEventLevel.add(AccessConfigWindowsLogInfoCreate.EventLevelEnum.fromValue("cr
itical"));

listWindowsLogInfoEventLevel.add(AccessConfigWindowsLogInfoCreate.EventLevelEnum.fromValue("v
erbose"));
        AccessConfigTimeOffset timeOffsetWindowsLogInfo = new AccessConfigTimeOffset();
        timeOffsetWindowsLogInfo.withOffset(111L)
            .withUnit(AccessConfigTimeOffset.UnitEnum.fromValue("hour"));
        List<AccessConfigWindowsLogInfoCreate.CategorysEnum> listWindowsLogInfoCategorys = new
ArrayList<>();

listWindowsLogInfoCategorys.add(AccessConfigWindowsLogInfoCreate.CategorysEnum.fromValue("Sys
tem"));

listWindowsLogInfoCategorys.add(AccessConfigWindowsLogInfoCreate.CategorysEnum.fromValue("Sec
urity"));

listWindowsLogInfoCategorys.add(AccessConfigWindowsLogInfoCreate.CategorysEnum.fromValue("Set
up"));
        AccessConfigWindowsLogInfoCreate windowsLogInfoAccessConfigDetail = new
```

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```
AccessConfigWindowsLogInfoCreate();
        windowsLogInfoAccessConfigDetail.withCategorys(listWindowsLogInfoCategorys)
            .withTimeOffset(timeOffsetWindowsLogInfo)
            .withEventLevel(listWindowsLogInfoEventLevel);
        AccessConfigFormatMutilCreate multiFormat = new AccessConfigFormatMutilCreate();
        multiFormat.withMode(AccessConfigFormatMutilCreate.ModeEnum.fromValue("time"))
            .withValue("YYYY-MM-DD hh:mm:ss");
        AccessConfigFormatCreate formatAccessConfigDetail = new AccessConfigFormatCreate();
        formatAccessConfigDetail.withMulti(multiFormat);
        List<String> listAccessConfigDetailBlackPaths = new ArrayList<>();
        listAccessConfigDetailBlackPaths.add("/testxxx");
        listAccessConfigDetailBlackPaths.add("/tesxxx");
        List<String> listAccessConfigDetailPaths = new ArrayList<>();
        listAccessConfigDetailPaths.add("/test/xxx");
        listAccessConfigDetailPaths.add("/texxx");
        AccessConfigDeatilCreate accessConfigDetailbody = new AccessConfigDeatilCreate();
        accessConfigDetailbody.withPaths(listAccessConfigDetailPaths)
            .withBlackPaths(listAccessConfigDetailBlackPaths)
            .withFormat(formatAccessConfigDetail)
            .withWindowsLogInfo(windowsLogInfoAccessConfigDetail);
        body.withAccessConfigTag(listbodyAccessConfigTag);
        body.withHostGroupInfo(hostGroupInfobody);
        body.withLogInfo(logInfobody);
        body.withAccessConfigDetail(accessConfigDetailbody);

body.withAccessConfigType(CreateAccessConfigRequestBody.AccessConfigTypeEnum.fromValue("AGEN
T"));
        body.withAccessConfigName("Tesxxx");
        request.withBody(body);
        try {
            CreateAccessConfigResponse response = client.createAccessConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

- Creating a log ingestion configuration (for CCE)

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)
```

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```
client = LtsClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(LtsRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = CreateAccessConfigRequest()
    listAccessConfigTagbody = [
        AccessConfigTag(
            key="my01",
            value="001"
        ),
        AccessConfigTag(
            key="my02",
            value="002"
        )
    ]
    listHostGroupIdListHostGroupInfo = [
        "12b0bbd1-4eda-456b-a641-647aa66bdeab"
    ]
    hostGroupInfobody = AccessConfigHostGroupIdListCreate(
        host_group_id_list=listHostGroupIdListHostGroupInfo
    )
    logInfobody = AccessConfigBaseLogInfoCreate(
        log_group_id="9575cb24-290c-478e-a5db-88d6d1dc513b",
        log_stream_id="3581bee9-8698-476e-a0ba-b0f310ed99cf"
    )
    listLogK8sAccessConfigDetail = {
        "f": "6"
    }
    listExcludeK8sLabelsAccessConfigDetail = {
        "e": "5"
    }
    listIncludeK8sLabelsAccessConfigDetail = {
        "d": "4"
    }
    listLogEnvsAccessConfigDetail = {
        "i": "9"
    }
    listLogLabelsAccessConfigDetail = {
        "c": "3"
    }
    listExcludeEnvsAccessConfigDetail = {
        "h": "8"
    }
    listIncludeEnvsAccessConfigDetail = {
        "g": "7"
    }
    listExcludeLabelsAccessConfigDetail = {
        "b": "2"
    }
    listIncludeLabelsAccessConfigDetail = {
        "a": "1"
    }
    singleFormat = AccessConfigFormatSingleCreate(
        mode="system",
        value="1678969382000"
    )
    formatAccessConfigDetail = AccessConfigFormatCreate(
        single=singleFormat
    )
    accessConfigDetailbody = AccessConfigDeatilCreate(
        format=formatAccessConfigDetail,
        stdout=True,
        stderr=False,
        path_type="CONTAINER_STDOUT",
        namespace_regex="default",
        pod_name_regex="abc",
```

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```
            container_name_regex="my",
            include_labels=listIncludeLabelsAccessConfigDetail,
            exclude_labels=listExcludeLabelsAccessConfigDetail,
            include_envs=listIncludeEnvsAccessConfigDetail,
            exclude_envs=listExcludeEnvsAccessConfigDetail,
            log_labels=listLogLabelsAccessConfigDetail,
            log_envs=listLogEnvsAccessConfigDetail,
            include_k8s_labels=listIncludeK8sLabelsAccessConfigDetail,
            exclude_k8s_labels=listExcludeK8sLabelsAccessConfigDetail,
            log_k8s=listLogK8sAccessConfigDetail
        )
        request.body = CreateAccessConfigRequestBody(
            log_split=False,
            binary_collect=False,
            access_config_tag=listAccessConfigTagbody,
            host_group_info=hostGroupInfobody,
            log_info=logInfobody,
            access_config_detail=accessConfigDetailbody,
            access_config_type="K8S_CCE",
            access_config_name="myapinew322"
        )
        response = client.create_access_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- Creating a log ingestion configuration (for ECS)

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateAccessConfigRequest()
        listAccessConfigTagbody = [
            AccessConfigTag(
                key="xxx",
                value="xxx"
            ),
            AccessConfigTag(
                key="xxx1",
                value="xxx1"
            )
        ]
        listHostGroupIdListHostGroupInfo = [
            "4ee44d4f-a72b-40cf-a3c7-1xxxxx"
```

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```
    ]
    hostGroupInfobody = AccessConfigHostGroupIdListCreate(
        host_group_id_list=listHostGroupIdListHostGroupInfo
    )
    logInfobody = AccessConfigBaseLogInfoCreate(
        log_group_id="b179326d-c3be-4217-a3d9-xxxx",
        log_stream_id="020a6fa0-4740-4888-af06-98xxxxxx"
    )
    listEventLevelWindowsLogInfo = [
        "warning",
        "error",
        "critical",
        "verbose"
    ]
    timeOffsetWindowsLogInfo = AccessConfigTimeOffset(
        offset=111,
        unit="hour"
    )
    listCategorysWindowsLogInfo = [
        "System",
        "Security",
        "Setup"
    ]
    windowsLogInfoAccessConfigDetail = AccessConfigWindowsLogInfoCreate(
        categorys=listCategorysWindowsLogInfo,
        time_offset=timeOffsetWindowsLogInfo,
        event_level=listEventLevelWindowsLogInfo
    )
    multiFormat = AccessConfigFormatMutilCreate(
        mode="time",
        value="YYYY-MM-DD hh:mm:ss"
    )
    formatAccessConfigDetail = AccessConfigFormatCreate(
        multi=multiFormat
    )
    listBlackPathsAccessConfigDetail = [
        "/testxxx",
        "/tesxxx"
    ]
    listPathsAccessConfigDetail = [
        "/test/xxx",
        "/texxx"
    ]
    accessConfigDetailbody = AccessConfigDeatilCreate(
        paths=listPathsAccessConfigDetail,
        black_paths=listBlackPathsAccessConfigDetail,
        format=formatAccessConfigDetail,
        windows_log_info=windowsLogInfoAccessConfigDetail
    )
    request.body = CreateAccessConfigRequestBody(
        access_config_tag=listAccessConfigTagbody,
        host_group_info=hostGroupInfobody,
        log_info=logInfobody,
        access_config_detail=accessConfigDetailbody,
        access_config_type="AGENT",
        access_config_name="Tesxxx"
    )
    response = client.create_access_config(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

Go

- Creating a log ingestion configuration (for CCE)

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```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateAccessConfigRequest{}
    keyAccessConfigTag:= "my01"
    valueAccessConfigTag:= "001"
    keyAccessConfigTag1:= "my02"
    valueAccessConfigTag1:= "002"
    var listAccessConfigTagbody = []model.AccessConfigTag{
        {
            Key: &keyAccessConfigTag,
            Value: &valueAccessConfigTag,
        },
        {
            Key: &keyAccessConfigTag1,
            Value: &valueAccessConfigTag1,
        },
    }
    var listHostGroupIdListHostGroupInfo = []string{
        "12b0bbd1-4eda-456b-a641-647aa66bdeab",
    }
    hostGroupInfobody := &model.AccessConfigHostGroupIdListCreate{
        HostGroupIdList: listHostGroupIdListHostGroupInfo,
    }
    logInfobody := &model.AccessConfigBaseLogInfoCreate{
        LogGroupId: "9575cb24-290c-478e-a5db-88d6d1dc513b",
        LogStreamId: "3581bee9-8698-476e-a0ba-b0f310ed99cf",
    }
    var listLogK8sAccessConfigDetail = map[string]string{
        "f": "6",
    }
    var listExcludeK8sLabelsAccessConfigDetail = map[string]string{
        "e": "5",
    }
    var listIncludeK8sLabelsAccessConfigDetail = map[string]string{
        "d": "4",
    }
    var listLogEnvsAccessConfigDetail = map[string]string{
        "i": "9",
```

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```
    }
    var listLogLabelsAccessConfigDetail = map[string]string{
        "c": "3",
    }
    var listExcludeEnvsAccessConfigDetail = map[string]string{
        "h": "8",
    }
    var listIncludeEnvsAccessConfigDetail = map[string]string{
        "g": "7",
    }
    var listExcludeLabelsAccessConfigDetail = map[string]string{
        "b": "2",
    }
    var listIncludeLabelsAccessConfigDetail = map[string]string{
        "a": "1",
    }
    modeSingle:= model.GetAccessConfigFormatSingleCreateModeEnum().SYSTEM
    valueSingle:= "1678969382000"
    singleFormat := &model.AccessConfigFormatSingleCreate{
        Mode: &modeSingle,
        Value: &valueSingle,
    }
    formatAccessConfigDetail := &model.AccessConfigFormatCreate{
        Single: singleFormat,
    }
    stdoutAccessConfigDetail:= true
    stderrAccessConfigDetail:= false
    pathTypeAccessConfigDetail:=
model.GetAccessConfigDeatilCreatePathTypeEnum().CONTAINER_STDOUT
    namespaceRegexAccessConfigDetail:= "default"
    podNameRegexAccessConfigDetail:= "abc"
    containerNameRegexAccessConfigDetail:= "my"
    accessConfigDetailbody := &model.AccessConfigDeatilCreate{
        Format: formatAccessConfigDetail,
        Stdout: &stdoutAccessConfigDetail,
        Stderr: &stderrAccessConfigDetail,
        PathType: &pathTypeAccessConfigDetail,
        NamespaceRegex: &namespaceRegexAccessConfigDetail,
        PodNameRegex: &podNameRegexAccessConfigDetail,
        ContainerNameRegex: &containerNameRegexAccessConfigDetail,
        IncludeLabels: listIncludeLabelsAccessConfigDetail,
        ExcludeLabels: listExcludeLabelsAccessConfigDetail,
        IncludeEnvs: listIncludeEnvsAccessConfigDetail,
        ExcludeEnvs: listExcludeEnvsAccessConfigDetail,
        LogLabels: listLogLabelsAccessConfigDetail,
        LogEnvs: listLogEnvsAccessConfigDetail,
        IncludeK8sLabels: listIncludeK8sLabelsAccessConfigDetail,
        ExcludeK8sLabels: listExcludeK8sLabelsAccessConfigDetail,
        LogK8s: listLogK8sAccessConfigDetail,
    }
    logSplitCreateAccessConfigRequestBody:= false
    binaryCollectCreateAccessConfigRequestBody:= false
    request.Body = &model.CreateAccessConfigRequestBody{
        LogSplit: &logSplitCreateAccessConfigRequestBody,
        BinaryCollect: &binaryCollectCreateAccessConfigRequestBody,
        AccessConfigTag: &listAccessConfigTagbody,
        HostGroupInfo: hostGroupInfobody,
        LogInfo: logInfobody,
        AccessConfigDetail: accessConfigDetailbody,
        AccessConfigType: model.GetCreateAccessConfigRequestBodyAccessConfigTypeEnum().K8_S_CCE,
        AccessConfigName: "myapinew322",
    }
    response, err := client.CreateAccessConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

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- Creating a log ingestion configuration (for ECS)

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateAccessConfigRequest{}
    keyAccessConfigTag:= "xxx"
    valueAccessConfigTag:= "xxx"
    keyAccessConfigTag1:= "xxx1"
    valueAccessConfigTag1:= "xxx1"
    var listAccessConfigTagbody = []model.AccessConfigTag{
        {
            Key: &keyAccessConfigTag,
            Value: &valueAccessConfigTag,
        },
        {
            Key: &keyAccessConfigTag1,
            Value: &valueAccessConfigTag1,
        },
    }
    var listHostGroupIdListHostGroupInfo = []string{
        "4ee44d4f-a72b-40cf-a3c7-1xxxxx",
    }
    hostGroupInfobody := &model.AccessConfigHostGroupIdListCreate{
        HostGroupIdList: listHostGroupIdListHostGroupInfo,
    }
    logInfobody := &model.AccessConfigBaseLogInfoCreate{
        LogGroupId: "b179326d-c3be-4217-a3d9-xxxx",
        LogStreamId: "020a6fa0-4740-4888-af06-98xxxxxx",
    }
    var listEventLevelWindowsLogInfo = []model.AccessConfigWindowsLogInfoCreateEventLevel{
        model.GetAccessConfigWindowsLogInfoCreateEventLevelEnum().WARNING,
        model.GetAccessConfigWindowsLogInfoCreateEventLevelEnum().ERROR,
        model.GetAccessConfigWindowsLogInfoCreateEventLevelEnum().CRITICAL,
        model.GetAccessConfigWindowsLogInfoCreateEventLevelEnum().VERBOSE,
    }
    timeOffsetWindowsLogInfo := &model.AccessConfigTimeOffset{
        Offset: int64(111),
        Unit: model.GetAccessConfigTimeOffsetUnitEnum().HOUR,
    }
```

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```
    var listCategorysWindowsLogInfo = []model.AccessConfigWindowsLogInfoCreateCategorys{
        model.GetAccessConfigWindowsLogInfoCreateCategorysEnum().SYSTEM,
        model.GetAccessConfigWindowsLogInfoCreateCategorysEnum().SECURITY,
        model.GetAccessConfigWindowsLogInfoCreateCategorysEnum().SETUP,
    }
    windowsLogInfoAccessConfigDetail := &model.AccessConfigWindowsLogInfoCreate{
        Categorys: listCategorysWindowsLogInfo,
        TimeOffset: timeOffsetWindowsLogInfo,
        EventLevel: listEventLevelWindowsLogInfo,
    }
    modeMulti:= model.GetAccessConfigFormatMutilCreateModeEnum().TIME
    valueMulti:= "YYYY-MM-DD hh:mm:ss"
    multiFormat := &model.AccessConfigFormatMutilCreate{
        Mode: &modeMulti,
        Value: &valueMulti,
    }
    formatAccessConfigDetail := &model.AccessConfigFormatCreate{
        Multi: multiFormat,
    }
    var listBlackPathsAccessConfigDetail = []string{
        "/testxxx",
        "/tesxxx",
    }
    var listPathsAccessConfigDetail = []string{
        "/test/xxx",
        "/texxx",
    }
    accessConfigDetailbody := &model.AccessConfigDeatilCreate{
        Paths: &listPathsAccessConfigDetail,
        BlackPaths: &listBlackPathsAccessConfigDetail,
        Format: formatAccessConfigDetail,
        WindowsLogInfo: windowsLogInfoAccessConfigDetail,
    }
    request.Body = &model.CreateAccessConfigRequestBody{
        AccessConfigTag: &listAccessConfigTagbody,
        HostGroupInfo: hostGroupInfobody,
        LogInfo: logInfobody,
        AccessConfigDetail: accessConfigDetailbody,
        AccessConfigType: model.GetCreateAccessConfigRequestBodyAccessConfigTypeEnum().AGENT,
        AccessConfigName: "Tesxxx",
    }
    response, err := client.CreateAccessConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The ingestion configuration is created.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.

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Status Code	Description
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.5.5 Modifying a Log Ingestion Configuration

Function

This API is used to modify a log ingestion configuration.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v3/{project_id}/lts/access-config

Table 6-279 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Account Tenant ID, Project Resource Set ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**

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Request Parameters

Table 6-280 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-281 Request body parameters

Parameter	Mandatory	Type	Description
access_config_id	Yes	String	Ingestion configuration ID. Minimum: **36** Maximum: **36**
access_config_name	No	String	Ingestion configuration name. Use only letters, digits, hyphens (-), underscores (_), and periods (.). Do not start with a period or underscore or end with a period. Each name contains a maximum of 64 characters.

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Parameter	Mandatory	Type	Description
access_config_detail	No	**AccessConfigDeatilUpdate** object	Ingestion configuration details.
host_group_info	No	**AccessConfigHostGroupIdList** object	Host group ID list.
access_config_tag	No	Array of **accessConfigTag** objects	Tag information. A tag key must be unique. Up to 20 tags are supported.
log_split	No	Boolean	Log splitting.
binary_collect	No	Boolean	Binary collection.
cluster_id	No	String	CCE cluster ID. This parameter is mandatory for the CCE type.
incremental_collect	No	Boolean	Whether to perform incremental collection. **true** indicates incremental collection and **false** indicates full collection.
encoding_format	No	String	Encoding format. The default format is UTF-8.
processor_type	No	String	IC structuring parsing type.
demo_log	No	String	Example log.
demo_fields	No	Array of **DemoFieldAccess** objects	Example log parsing field.
processors	No	Array of **Processor** objects	IC structuring parser.
application_id	No	String	ServiceStage application ID.
environment_id	No	String	ServiceStage environment ID.
component_id	No	Array of strings	ServiceStage component ID.

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Table 6-282 AccessConfigDeatilUpdate

Parameter	Mandatory	Type	Description
paths	No	Array of strings	1. The path must start with a slash (/) or a *letter*.. 2. The value cannot contain special characters <>'| "and cannot contain only slashes (/). 3. The level-1 directory does not support wildcard characters (*) and cannot start with /** /.* 4. Only one double asterisk (**) can be contained in a path. 5. The maximum number is 10. Minimum: **1** Maximum: **128**
black_paths	No	Array of strings	1. The path must start with a slash (/) or a *letter*.. 2. The value cannot contain special characters <>'| "and cannot contain only slashes (/). 3. The level-1 directory does not support wildcard characters (*) and cannot start with /** /.* 4. Only one double asterisk (**) can be contained in a path. 5. The maximum number is 10. Minimum: **1** Maximum: **128**
format	No	**AccessConfigFormatUpdate** object	Log format. Set it to either **single** or **multi**.
windows_log_info	No	**AccessConfigWindowsLogInfoUpdate** object	Windows event logs. To stop collecting Windows event logs, leave this parameter to empty.

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Parameter	Mandatory	Type	Description
stdout	No	Boolean	Standard output switch. This parameter is used only for CCE log ingestion.
stderr	No	Boolean	Standard output error switch. This parameter is used only for CCE log ingestion.
pathType	No	String	CCE log ingestion type. This parameter is used only for CCE log ingestion. Enumeration values: • **HOST_FILE** • **CONTAINER_STDOUT** • **CONTAINER_FILE**
namespaceRegex	No	String	Regular expression matching of Kubernetes namespaces. This parameter is used only for CCE log ingestion.
podNameRegex	No	String	Regular expression matching of the Kubernetes container name. This parameter is used only for CCE log ingestion.
containerNameRegex	No	String	Regular expression matching of the Kubernetes container name. This parameter is used only for CCE log ingestion.
includeLabels	No	Map<String,String>	Container label whitelist. A maximum of 30 container labels can be created. The key names must be unique. This parameter is used only for CCE log ingestion.
excludeLabels	No	Map<String,String>	Container label blacklist. A maximum of 30 container labels can be created. The key names must be unique. This parameter is used only for CCE log ingestion.
includeEnvs	No	Map<String,String>	Environment variable whitelist. A maximum of 30 environment variable whitelists can be created. Key names must be unique. This parameter is used only for CCE log ingestion.

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Parameter	Mandatory	Type	Description
excludeEnvs	No	Map<String,String>	Environment variable blacklist. A maximum of 30 environment variables can be created. The key names must be unique. This parameter is used only for CCE log ingestion.
logLabels	No	Map<String,String>	Environment variable log tag. A maximum of 30 tags can be created. The key name must be unique. This parameter is used only for CCE log ingestion.
logEnvs	No	Map<String,String>	Environment variable log tag. A maximum of 30 tags can be created. The key name must be unique. This parameter is used only for CCE log ingestion.
includeK8sLabels	No	Map<String,String>	Kubernetes label whitelist. A maximum of 30 Kubernetes label whitelists can be created. The key names must be unique. This parameter is used only for CCE log ingestion.
excludeK8sLabels	No	Map<String,String>	Kubernetes label blacklist. A maximum of 30 Kubernetes label blacklists can be created. The key names must be unique. This parameter is used only for CCE log ingestion.
logK8s	No	Map<String,String>	Kubernetes label. A maximum of 30 Kubernetes labels can be created. The key names must be unique. This parameter is used only for CCE log ingestion.

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Parameter	Mandatory	Type	Description
system_fields	No	Array of strings	System built-in fields. When configuring a log ingestion rule, you can specify system fields to include in the tag data of each log reported. The system fields for host log files are **hostName**, **hostId**, **hostIP**, **pathFile**, **hostIPv6**, **category**, **collectTime**, and **__host_group__**. The system fields for Kubernetes cluster container log files are **hostName**, **hostId**, **hostIP**, **pathFile**, **hostIPv6**, **clusterId**, **podName**, **appName**, **containerName**, **nameSpace**, **category**, **collectTime**, **__host_group__**, **serviceID**, **podIp**, **clusterName**, **workloadType**, and **__image_name__**. If this parameter is transferred during modification, the original configuration will be overwritten. When you configure metadata for the first time, this parameter is mandatory. In this case, **["pathFile"]** must be entered and other fields are optional.
custom_key_value	No	Map<String,String>	Custom key-value pairs. When configuring a log ingestion rule, you can configure up to 20 custom key-value pairs to include in the tag data of each log reported. A key can contain up to 128 characters, including letters, digits, hyphens (-), and underscores (_). A value can contain up to 1,024 characters. If this parameter is transferred during modification, the original configuration will be overwritten.

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Parameter	Mandatory	Type	Description
includeLabelsLogical	No	String	Logic for the container label whitelist to take effect. The value can be **AND** or **OR** (default). When there are multiple conditions for the container label whitelist, AND indicates that the whitelist takes effect only when all the conditions are met, and OR indicates that the whitelist takes effect when one of the conditions is met.
excludeLabelsLogical	No	String	Logic for the container label blacklist to take effect. The value can be **AND** or **OR** (default). When there are multiple conditions for the container label blacklist, AND indicates that the blacklist takes effect only when all the conditions are met, and OR indicates that the blacklist takes effect when one of the conditions is met.
includeK8sLabelsLogical	No	String	Logic for the Kubernetes label whitelist to take effect. The value can be **AND** or **OR** (default). When there are multiple conditions for the Kubernetes label whitelist, AND indicates that the whitelist takes effect only when all the conditions are met, and OR indicates that the whitelist takes effect when one of the conditions is met.
excludeK8sLabelsLogical	No	String	Logic for the Kubernetes label blacklist to take effect. The value can be **AND** or **OR** (default). When there are multiple conditions for the Kubernetes label blacklist, AND indicates that the blacklist takes effect only when all the conditions are met, and OR indicates that the blacklist takes effect when one of the conditions is met.

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Parameter	Mandatory	Type	Description
includeEnvsLogical	No	String	Logic for the environment variable whitelist to take effect. The value can be **AND** or **OR** (default). When there are multiple conditions for the environment variable whitelist, AND indicates that the whitelist takes effect only when all the conditions are met, and OR indicates that the whitelist takes effect when one of the conditions is met.
excludeEnvsLogical	No	String	Logic for the environment variable blacklist to take effect. The value can be **AND** or **OR** (default). When there are multiple conditions for the environment variable blacklist, AND indicates that the blacklist takes effect only when all the conditions are met, and OR indicates that the blacklist takes effect when one of the conditions is met.

Table 6-283 AccessConfigFormatUpdate

Parameter	Mandatory	Type	Description
single	No	**AccessConfigFormatSingle** object	Single-line logs.
multi	No	**AccessConfigFormatMutil** object	Multi-line logs.

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Table 6-284 AccessConfigFormatSingle

Parameter	Mandatory	Type	Description
mode	Yes	String	Single-line logs. **system** indicates the system time, whereas **wildcard** indicates the time wildcard. Enumeration values: • **system** • **wildcard**
value	Yes	String	Log time.If **mode** is **system**, the value is the current timestamp.If **mode** is **wildcard**, the value is a time wildcard, which is used to match the log printing time displayed at the beginning of a log event. If the time format in a log event is **2019-01-01 23:59:59**, the time wildcard is **YYYY-MM-DD hh:mm:ss**. If the time format in a log event is **19-1-1 23:59:59**, the time wildcard is **YY-M-D hh:mm:ss**. Minimum: **1** Maximum: **64**

Table 6-285 AccessConfigFormatMutil

Parameter	Mandatory	Type	Description
mode	Yes	String	Single-line logs. **time** indicates a time wildcard is used to detect log boundaries, whereas **regular** indicates that a regular expression is used. Enumeration values: • **time** • **regular**

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Parameter	Mandatory	Type	Description
value	Yes	String	Log time.If **mode** is **regular**, the value is a regular expression.If **mode** is **time**, the value is a time wildcard, which is used to match the log printing time displayed at the beginning of a log event. If the time format in a log event is **2019-01-01 23:59:59**, the time wildcard is **YYYY-MM-DD hh:mm:ss**. If the time format in a log event is **19-1-1 23:59:59**, the time wildcard is **YY-M-D hh:mm:ss**. Minimum: **1** Maximum: **64**

Table 6-286 AccessConfigWindowsLogInfoUpdate

Parameter	Mandatory	Type	Description
categorys	No	Array of strings	The type of Windows event logs to be collected. **Application**: application system; **System**: system; **Security**: security; **Setup**: startup Enumeration values: • **Application** • **System** • **Security** • **Setup**
time_offset	No	**AccessConfigTimeOffset** object	Time offset.

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Parameter	Mandatory	Type	Description
event_level	No	Array of strings	Event level. information, warning, error, critical, verbose. Enumeration values: • **information** • **warning** • **error** • **critical** • **verbose**

Table 6-287 AccessConfigTimeOffset

Parameter	Mandatory	Type	Description
offset	Yes	Long	**Definition** Time offset. • When **unit** is **day**, the value of **offset** ranges from 1 to 7. • When **unit** is **hour**, the value of **offset** ranges from 1 to 168. • When **unit** is **sec**, the value of **offset** ranges from 1 to 604,800. **Range** N/A
unit	Yes	String	**Definition** Unit of the offset time. • **day** • **hour** • **sec** **Range** N/A

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Table 6-288 AccessConfigHostGroupIdList

Parameter	Mandatory	Type	Description
host_group_id_list	Yes	Array of strings	**Definition** Host group ID list.

Table 6-289 accessConfigTag

Parameter	Mandatory	Type	Description
key	No	String	**Definition** Tag key. **Constraints** • Each tag key must be unique. • A tag is a key-value pair. Each key is paired with its corresponding value. **Range** • A tag key can contain letters, digits, spaces, and special characters (_.:=+-@), but cannot start or end with a space or start with *sys*. • A tag key can contain up to 128 characters. **Default Value** N/A
value	No	String	**Definition** Tag value. **Constraints** A tag is a key-value pair. Each key is paired with its corresponding value. **Range** • A tag value can contain letters, digits, spaces, and special characters (_.:=+-@). • A tag value can contain up to 255 characters. **Default Value** N/A

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Table 6-290 DemoFieldAccess

Parameter	Mandatory	Type	Description
field_name	No	String	**Definition** Parsing fields of the sample log event. **Range** N/A
field_value	No	String	**Definition** Value of a field in a sample log. **Range** N/A

Table 6-291 Processor

Parameter	Mandatory	Type	Description
type	No	String	**Definition** Structuring parsing type. The values are as follows: • **processor_regex**: regular expression • **processor_split_string**: delimiter • **processor_json**: JSON • **processor_gotime**: custom time type • **processor_filter_regex**: log filtering • **processor_drop**: type of fields to be deleted • **processor_rename**: type of fields to be modified **Range** N/A
detail	No	**Detail** object	**Definition** Structuring parsing configuration information.

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Table 6-292 Detail

Parameter	Mandatory	Type	Description
source_key	No	String	**Definition** Original field for storing log content before log structuring parsing. The default value is **content**. **Range** N/A
regex	No	String	**Definition** Regular expression. Regular expression used to match logs. **Range** N/A
keys	No	Array of strings	**Definition** Name of an extracted field. Set a corresponding field name for the extracted log content.
multi_line_regex	No	String	**Definition** First line regular expression. **Range** N/A
keep_source	No	Boolean	**Definition** Whether to upload raw logs. **Range** **true**: retains raw logs. **false**: does not retain raw logs.
keep_source_if_parse_error	No	Boolean	**Definition** Whether to upload logs that fail to be parsed. **Range** **true**: uploads logs that fail to be parsed. **false**: does not upload logs that fail to be parsed.

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Parameter	Mandatory	Type	Description
split_sep	No	String	**Definition** Delimiters. Set delimiters based on the log content, for example, vertical bar (|). **Range** N/A
split_type	No	String	**Definition** Delimiter type. The value can be **char** (single character), **special_char** (invisible characters), or **string**. **Range** N/A
fields	No	Map<String,String>	**Definition** Field name and value to be added, in the key-value pair format. You can add multiple key-value pairs.
drop_keys	No	Array of strings	**Definition** List of discarded fields.
source_keys	No	Array of strings	**Definition** Original field to be renamed.
dest_keys	No	Array of strings	**Definition** Renamed field.
expand_depth	No	Integer	**Definition** Depth of JSON expansion. The default value is **0**, indicating that there is no limit. **1** indicates the one level, and so on. **Range** N/A
expand_connector	No	String	**Definition** Connector for JSON expansion. The default value is a period (.). **Range** N/A

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Parameter	Mandatory	Type	Description
source_format	No	String	**Definition** Format of the original time. **Range** N/A
source_value	No	String	**Definition** Field value of the original time. **Range** N/A
set_time	No	Boolean	**Definition** Whether to set the parsed time as the log time. **Range** N/A
include	No	Map<String,String>	**Definition** Log filtering whitelist rule, in the format of key-value pairs. Each key indicates a log field and must be unique, with a maximum of 256 characters. The corresponding value is a regular expression that specifies the filtering criteria.
exclude	No	Map<String,String>	**Definition** Log filtering blacklist rule, in the format of key-value pairs. Each key indicates a log field and must be unique, with a maximum of 256 characters. The corresponding value is a regular expression that specifies the filtering criteria.

Response Parameters

Status code: 200

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Table 6-293 Response body parameters

Parameter	Type	Description
access_config_id	String	**Definition** Log ingestion configuration ID. **Range** N/A
access_config_name	String	**Definition** Log ingestion configuration name. **Range** N/A
access_config_type	String	**Definition** Log ingestion configuration type. **Range** • **AGENT**: ECS text log ingestion. • **K8S_CCE**: CCE application log ingestion.
create_time	Long	**Definition** Time when the log ingestion configuration was created. **Range** N/A
access_config_detail	**AccessConfigDeatilCreate** object	**Definition** Log ingestion configuration details.
log_info	**AccessConfigQueryLogInfo** object	**Definition** Log stream details of the log ingestion configuration.
host_group_info	**AccessConfigHostGroupIdList** object	**Definition** Host group ID list of the log ingestion configuration.
access_config_tag	Array of **accessConfigTagResp** objects	**Definition** Label information of the log ingestion configuration.
log_split	Boolean	**Definition** Whether to split logs. **Range** • **true**: splits logs. • **false**: does not split logs.

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Parameter	Type	Description
binary_collect	Boolean	**Definition** Whether to collect binary data. **Range** • **true**: collects binary data. • **false**: does not collect binary data.
cluster_id	String	**Definition** CCE cluster ID. **Range** N/A
encoding_format	String	**Definition** Encoding format. The default format is UTF-8. **Range** N/A
incremental_collect	Boolean	**Definition** Whether to enable incremental collection. **Range** • **true**: collects new log data. • **false**: collects all log data.
processor_type	String	**Definition** ICAgent structuring parsing type. **Range** • **SINGLE_LINE** • **MULTI_LINE** • **REGEX** • **MULTI_REGEX** • **SPLIT** • **JSON** • **NGINX** • **COMPOSE** • **ORC**
demo_log	String	**Definition** Sample log event. **Range** N/A

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Parameter	Type	Description
demo_fields	Array of **DemoFieldAccess** objects	**Definition** Parsing fields of the sample log event.
processors	Array of **Processor** objects	**Definition** ICAgent structuring parser.
log_split_size	Integer	**Definition** Size at which to split a log file. **Range** N/A
application_id	String	**Definition** ServiceStage application ID. **Range** N/A
environment_id	String	**Definition** ServiceStage environment ID. **Range** N/A
component_id	Array of strings	**Definition** ServiceStage component ID list.
recursive_depth	Integer	**Definition** Maximum recursion depth of a collection path. **Range** N/A
access_config_type_source	String	**Definition** Self-built software source of log ingestion. **Range** • **ECS** • **CCE** • **BMS** • **K8S** • **ServiceStageHost** • **ServiceStage**

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Table 6-294 AccessConfigDeatilCreate

Parameter	Type	Description
paths	Array of strings	**Definition** Collection paths. • A path must start with a slash (/) or a letter followed by a colon and a backslash (for example, C:\). • A path cannot contain only slashes (/). The following special characters are not allowed: <>'|" • A path cannot start with /** or /*. • Only one double asterisk (**) can be contained in a path. • The container path and host path are mandatory for the CCE type and are not mandatory for the standard output.
black_paths	Array of strings	**Definition** Collection blacklist paths. • A path must start with a slash (/) or a letter followed by a colon and a backslash (for example, C:\). • A path cannot contain only slashes (/). The following special characters are not allowed: <>'|" • A path cannot start with /** or /*. • Only one double asterisk (**) can be contained in a path.
format	**AccessConfigFormatCreate** object	**Definition** Log format information.
windows_log_info	**AccessConfigWindowsLogInfoCreate** object	**Definition** Windows event log information in a log ingestion configuration.
stdout	Boolean	**Definition** Whether to enable container standard output collection in a CCE application log ingestion configuration. **Range** • **true**: Container standard output collection is enabled. • **false**: Container standard output collection is disabled.

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Parameter	Type	Description
stderr	Boolean	**Definition** Whether to enable container standard error collection in a CCE application log ingestion configuration. **Range** • **true**: Container standard error collection is enabled. • **false**: Container standard error collection is disabled.
pathType	String	**Definition** Data source type. This parameter is available only for CCE application log ingestion. **Range** • **HOST_FILE**: node file type • **CONTAINER_STDOUT**: container standard output • **CONTAINER_FILE**: container file path • **K8S_EVENT**: Kubernetes event
namespaceRegex	String	**Definition** Regular expression used to match Kubernetes namespaces by name. LTS will collect logs from containers within those matched namespaces. To collect logs of all namespaces, leave this parameter empty. This parameter is available only for CCE application log ingestion. **Range** N/A
podNameRegex	String	**Definition** Regular expression used to match Kubernetes pods by name. LTS will collect logs from containers within those matched pods. To collect logs of all pods, leave this parameter empty. This parameter is available only for CCE application log ingestion. **Range** N/A

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Parameter	Type	Description
containerNameRegex	String	**Definition** Regular expression used to match Kubernetes containers by name. Kubernetes container names are defined in **spec.containers**. LTS will collect logs from those matched containers. To collect logs of all containers, leave this parameter empty. This parameter is available only for CCE application log ingestion. **Range** N/A
includeLabels	Map<String,String>	**Definition** Container label whitelist. When configuring CCE application log ingestion, you can specify containers whose logs are to be collected by adding container label whitelists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. ● *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. ● *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their container labels are matched. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their container labels are matched. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.

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Parameter	Type	Description
excludeLabels	Map<String,String>	**Definition** Container label blacklist. When configuring CCE application log ingestion, you can specify containers whose logs are not to be collected by adding container label blacklists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. • *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. • *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their container labels are excluded. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their container labels are excluded. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.

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Parameter	Type	Description
includeEnvs	Map<String,String>	**Definition** Environment variable whitelist. When configuring CCE application log ingestion, you can specify containers whose logs are to be collected by adding environment variable whitelists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. ● *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. ● *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their environment variables are matched. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their environment variables are matched. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.

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Parameter	Type	Description
excludeEnvs	Map<String,String>	**Definition** Environment variable blacklist. When configuring CCE application log ingestion, you can specify containers whose logs are not to be collected by adding environment variable blacklists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. ● *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. ● *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their environment variables are excluded. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their environment variables are excluded. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.
logLabels	Map<String,String>	**Definition** Container label. When configuring CCE application log ingestion, you can use this parameter to add container label fields to logs. For example, if you set **app** as the LabelKey and **app_alias** as the LabelValue, when a container's labels contain **app=lts**, the field **{app_alias:lts}** will be added to the logs of that container.
logEnvs	Map<String,String>	**Definition** Environment variable. When configuring CCE application log ingestion, you can use this parameter to add environment variable fields to logs. For example, if you set **app** as the environment variable key and **app_alias** as the value, when the Kubernetes environment variables contain **app=lts**, **{app_alias:lts}** will be added to the Kubernetes logs.

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Parameter	Type	Description
includeK8sLabels	Map<String,String>	**Definition** Kubernetes label whitelist. When configuring CCE application log ingestion, you can specify containers whose logs are to be collected by adding Kubernetes label whitelists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. ● *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. ● *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their Kubernetes labels are matched. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their Kubernetes labels are matched. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.

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Parameter	Type	Description
excludeK8sLabels	Map<String,String>	**Definition** Kubernetes label blacklist. When configuring CCE application log ingestion, you can specify containers whose logs are not to be collected by adding Kubernetes label blacklists in the format of LabelKey:LabelValue. You can add up to 30 LabelKey:LabelValue pairs. • *LabelKey*: mandatory. It cannot start with a period (.) and can contain a maximum of 128 characters. • *LabelValue*: It can be left blank and can contain a maximum of 512 characters. If *LabelValue* is empty, all containers with the specified *LabelKey* in their Kubernetes labels are excluded. If *LabelValue* is not empty, only containers with *LabelKey=LabelValue* in their Kubernetes labels are excluded. *LabelKey* must be exactly matched, while *LabelValue* supports regular expression matching.
logK8s	Map<String,String>	**Definition** Kubernetes label. When configuring CCE application log ingestion, you can use this parameter to add Kubernetes label fields to logs. For example, if you set **app** as the LabelKey and **app_alias** as the LabelValue, when a container's labels contain **app=lts**, the field **{app_alias:lts}** will be added to the logs of that container.
repeat_collect	Boolean	**Definition** Whether repeated file collection is allowed. **Range** • **true**: One host log file can be collected to multiple log streams. • **false**: Each collection path must be unique. That is, the same log file in the same host cannot be collected to different log streams.

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Parameter	Type	Description
system_fields	Array of strings	**Definition** System built-in fields. When configuring a log ingestion rule, you can specify system fields to include in the tag data of each log reported. If this parameter is modified, the original configuration will be overwritten. ● The system fields for host log files are **hostName**, **hostId**, **hostIP**, **pathFile**, **hostIPv6**, **category**, **collectTime**, and **__host_group__**. ● The system fields for Kubernetes cluster container log files are **hostName**, **hostId**, **hostIP**, **pathFile**, **hostIPv6**, **clusterId**, **podName**, **appName**, **containerName**, **nameSpace**, **category**, **collectTime**, **__host_group__**, **serviceID**, **podIp**, **clusterName**, **workloadType**, and **__image_name__**.
custom_key_value	Map<String,String>	**Definition** Custom key-value pairs. When configuring log ingestion, you can configure up to 20 custom key-value pairs to be included as fields in the tag data of each log reported. If this parameter is modified, the original configuration will be overwritten. ● *Key*: Enter up to 128 characters, including letters, digits, underscores (_), and hyphens (-). ● *Value*: Enter up to 1,024 characters.
includeLabelsLogical	String	**Definition** Logic for multiple container label whitelists, which determines how the whitelists are applied. The value can be **AND** (all whitelists must be met) or **OR** (default value; any whitelist is met). **Range** ● AND ● OR

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Parameter	Type	Description
excludeLabelsLogical	String	**Definition** Logic for multiple container label blacklists, which determines how the blacklists are applied. The value can be **AND** (all blacklists must be met) or **OR** (default value; any blacklist is met). **Range** ● AND ● OR
includeK8sLabelsLogical	String	**Definition** Logic for multiple Kubernetes label whitelists, which determines how the whitelists are applied. The value can be **AND** (all whitelists must be met) or **OR** (default value; any whitelist is met). **Range** ● AND ● OR
excludeK8sLabelsLogical	String	**Definition** Logic for multiple Kubernetes label blacklists, which determines how the blacklists are applied. The value can be **AND** (all blacklists must be met) or **OR** (default value; any blacklist is met). **Range** ● AND ● OR
includeEnvsLogical	String	**Definition** Logic for multiple environment variable whitelists, which determines how the whitelists are applied. The value can be **AND** (all whitelists must be met) or **OR** (default value; any whitelist is met). **Range** ● AND ● OR

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Parameter	Type	Description
excludeEnvsLogical	String	**Definition** Logic for multiple environment variable blacklists, which determines how the blacklists are applied. The value can be **AND** (all blacklists must be met) or **OR** (default value; any blacklist is met). **Range** • AND • OR

Table 6-295 AccessConfigFormatCreate

Parameter	Type	Description
single	**AccessConfigFormatSingleCreate** object	**Definition** Single-line log. Each log line is displayed as a separate log event on the LTS console.
multi	**AccessConfigFormatMutilCreate** object	**Definition** Multi-line log. Multiple consecutive log lines are displayed as one log event on the LTS console.

Table 6-296 AccessConfigFormatSingleCreate

Parameter	Type	Description
mode	String	**Definition** Single-line log collection mode. **Range** • **system**: system time • **wildcard**: time wildcard

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Parameter	Type	Description
value	String	**Definition** Log time. • If **mode** is **system**, enter the current timestamp for **value**. • If **mode** is set to **wildcard**, enter a time wildcard for **value**. When a time wildcard is used to match the log printing time displayed at the beginning of a log event: If the time format in a log event is **2019-01-01 23:59:59**, the time wildcard is **YYYY-MM-DD hh:mm:ss**. If the time format in a log event is **19-1-1 23:59:59**, the time wildcard is **YY-M-D hh:mm:ss**. **Range** N/A

Table 6-297 AccessConfigFormatMutilCreate

Parameter	Type	Description
mode	String	**Definition** Multi-line log collection mode. **Range** • **time**: log time • **regular**: regular expression mode
value	String	**Definition** Log time. • If **mode** is **system**, enter the current timestamp for **value**. • If **mode** is set to **wildcard**, enter a time wildcard for **value**. When a time wildcard is used to match the log printing time displayed at the beginning of a log event: If the time format in a log event is **2019-01-01 23:59:59**, the time wildcard is **YYYY-MM-DD hh:mm:ss**. If the time format in a log event is **19-1-1 23:59:59**, the time wildcard is **YY-M-D hh:mm:ss**. **Range** N/A

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Table 6-298 AccessConfigWindowsLogInfoCreate

Parameter	Type	Description
categorys	Array of strings	**Definition** Type of Windows event logs to be collected. There are four types: • **Application** • **System** • **Security** • **Setup**: start
time_offset	**AccessConfigTimeOffset** object	**Definition** Offset of the first collection time. This parameter is used to correct the time deviation or calculate the relative time. If you set this parameter to **7**, logs generated within the seven days before the collection start time are collected. This offset takes effect only for the first collection to ensure that the logs are not repeatedly collected.
event_level	Array of strings	**Definition** Event level. You can filter Windows events based on their levels. This function is available only to Windows Vista or later. There are five levels: • **information** • **warning** • **error** • **critical** • **verbose**

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Table 6-299 AccessConfigTimeOffset

Parameter	Type	Description
offset	Long	**Definition** Time offset. • When **unit** is **day**, the value of **offset** ranges from 1 to 7. • When **unit** is **hour**, the value of **offset** ranges from 1 to 168. • When **unit** is **sec**, the value of **offset** ranges from 1 to 604,800. **Range** N/A
unit	String	**Definition** Unit of the offset time. • **day** • **hour** • **sec** **Range** N/A

Table 6-300 AccessConfigQueryLogInfo

Parameter	Type	Description
log_group_id	String	**Definition** Log group ID. **Range** N/A
log_stream_id	String	**Definition** Log stream ID. **Range** N/A
log_group_name	String	**Definition** Log group name. **Range** N/A

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Parameter	Type	Description
log_stream_name	String	**Definition** Log stream name. **Range** N/A

Table 6-301 AccessConfigHostGroupIdList

Parameter	Type	Description
host_group_id_list	Array of strings	**Definition** Host group ID list.

Table 6-302 accessConfigTagResp

Parameter	Type	Description
key	String	**Definition** Tag key. **Range** • A tag key can contain letters, digits, spaces, and special characters (_.:=+-@), but cannot start or end with a space or start with *sys*. • A tag key can contain up to 128 characters.
value	String	**Definition** Tag value. **Range** • A tag value can contain letters, digits, spaces, and special characters (_.:=+-@). • A tag value can contain up to 255 characters.

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Table 6-303 DemoFieldAccess

Parameter	Type	Description
field_name	String	**Definition** Parsing fields of the sample log event. **Range** N/A
field_value	String	**Definition** Value of a field in a sample log. **Range** N/A

Table 6-304 Processor

Parameter	Type	Description
type	String	**Definition** Structuring parsing type. The values are as follows: • **processor_regex**: regular expression • **processor_split_string**: delimiter • **processor_json**: JSON • **processor_gotime**: custom time type • **processor_filter_regex**: log filtering • **processor_drop**: type of fields to be deleted • **processor_rename**: type of fields to be modified **Range** N/A
detail	**Detail** object	**Definition** Structuring parsing configuration information.

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Table 6-305 Detail

Parameter	Type	Description
source_key	String	**Definition** Original field for storing log content before log structuring parsing. The default value is **content**. **Range** N/A
regex	String	**Definition** Regular expression. Regular expression used to match logs. **Range** N/A
keys	Array of strings	**Definition** Name of an extracted field. Set a corresponding field name for the extracted log content.
multi_line_regex	String	**Definition** First line regular expression. **Range** N/A
keep_source	Boolean	**Definition** Whether to upload raw logs. **Range** **true**: retains raw logs. **false**: does not retain raw logs.
keep_source_if_parse_error	Boolean	**Definition** Whether to upload logs that fail to be parsed. **Range** **true**: uploads logs that fail to be parsed. **false**: does not upload logs that fail to be parsed.
split_sep	String	**Definition** Delimiters. Set delimiters based on the log content, for example, vertical bar (|). **Range** N/A

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Parameter	Type	Description
split_type	String	**Definition** Delimiter type. The value can be **char** (single character), **special_char** (invisible characters), or **string**. **Range** N/A
fields	Map<String,String>	**Definition** Field name and value to be added, in the key-value pair format. You can add multiple key-value pairs.
drop_keys	Array of strings	**Definition** List of discarded fields.
source_keys	Array of strings	**Definition** Original field to be renamed.
dest_keys	Array of strings	**Definition** Renamed field.
expand_depth	Integer	**Definition** Depth of JSON expansion. The default value is **0**, indicating that there is no limit. **1** indicates the one level, and so on. **Range** N/A
expand_connector	String	**Definition** Connector for JSON expansion. The default value is a period (.). **Range** N/A
source_format	String	**Definition** Format of the original time. **Range** N/A
source_value	String	**Definition** Field value of the original time. **Range** N/A

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Parameter	Type	Description
set_time	Boolean	**Definition** Whether to set the parsed time as the log time. **Range** N/A
include	Map<String,String>	**Definition** Log filtering whitelist rule, in the format of key-value pairs. Each key indicates a log field and must be unique, with a maximum of 256 characters. The corresponding value is a regular expression that specifies the filtering criteria.
exclude	Map<String,String>	**Definition** Log filtering blacklist rule, in the format of key-value pairs. Each key indicates a log field and must be unique, with a maximum of 256 characters. The corresponding value is a regular expression that specifies the filtering criteria.

Status code: 400

Table 6-306 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

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Table 6-307 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Modifying a Log Ingestion Configuration (for ECS)

```
PUT https://{endpoint}/v3/{project_id}/lts/access-config

{
  "access_config_id" : "ed90802a-8475-4702-955e-e3ee16a5dde9",
  "access_config_detail" : {
    "paths" : [ "/test/222", "/test/111" ],
    "black_paths" : [ ],
    "format" : {
      "multi" : {
        "mode" : "regular",
        "value" : "aaaa"
      }
    },
    "windows_log_info" : {
      "categorys" : [ "Application", "System" ],
      "time_offset" : {
        "offset" : 7,
        "unit" : "day"
      },
      "event_level" : [ "information", "warning", "error", "critical", "verbose" ]
    }
  },
  "host_group_info" : {
    "host_group_id_list" : [ "de4dbed4-a3bc-4877-a7ee-096a2a63e036" ]
  },
  "access_config_tag" : [ {
    "key" : "xxx",
    "value" : "xxx"
  }, {
    "key" : "xxx1",
    "value" : "xxx1"
  } ]
}
```

Example Responses

Status code: 200

Ingestion configuration modified.

```
{
  "access_config_detail" : {
```

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```
    "black_paths" : [ "/wjy/hei/tesxxx", "/wjy/hei/tesxxx" ],
    "format" : {
      "single" : {
        "mode" : "wildcard",
        "value" : "1111"
      }
    },
    "paths" : [ "/wjy/tesxxx" ],
    "windows_log_info" : {
      "categorys" : [ "System", "Application", "Security", "Setup" ],
      "event_level" : [ "information", "warning", "error", "critical", "verbose" ],
      "time_offset" : {
        "offset" : 168,
        "unit" : "hour"
      }
    }
  },
  "access_config_id" : "aa58d29e-21a9-4761-ba16-8cxxxxd",
  "access_config_name" : "CollectionWjy_xxxxt2",
  "access_config_tag" : [ {
    "key" : "xxx",
    "value" : "xxx"
  }, {
    "key" : "xxx1",
    "value" : "xxx1"
  } ],
  "access_config_type" : "AGENT",
  "create_time" : 163504332654,
  "host_group_info" : {
    "host_group_id_list" : [ "de4dbed4-a3bc-4877-a7ee-09xxxxxx" ]
  },
  "log_info" : {
    "log_group_id" : "9a7e2183-2d6d-4732-9axxxxx49e0",
    "log_group_name" : "lts-groupxxxa",
    "log_stream_id" : "c4de0538-53e6-41fd-b951-xxxx8d7",
    "log_stream_name" : "lts-topixxx"
  }
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.1807",
  "error_msg" : "Invalid access config id"
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0010",
  "error_msg" : "The system encountered an internal error"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Modifying a Log Ingestion Configuration (for ECS)

```
package com.huaweicloud.sdk.test;
```

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```
import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class UpdateAccessConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateAccessConfigRequest request = new UpdateAccessConfigRequest();
        UpdateAccessConfigRequestBody body = new UpdateAccessConfigRequestBody();
        List<AccessConfigTag> listbodyAccessConfigTag = new ArrayList<>();
        listbodyAccessConfigTag.add(
            new AccessConfigTag()
                .withKey("xxx")
                .withValue("xxx")
        );
        listbodyAccessConfigTag.add(
            new AccessConfigTag()
                .withKey("xxx1")
                .withValue("xxx1")
        );
        List<String> listHostGroupInfoHostGroupIdList = new ArrayList<>();
        listHostGroupInfoHostGroupIdList.add("de4dbed4-a3bc-4877-a7ee-096a2a63e036");
        AccessConfigHostGroupIdList hostGroupInfobody = new AccessConfigHostGroupIdList();
        hostGroupInfobody.withHostGroupIdList(listHostGroupInfoHostGroupIdList);
        List<AccessConfigWindowsLogInfoUpdate.EventLevelEnum> listWindowsLogInfoEventLevel = new ArrayList<>();

listWindowsLogInfoEventLevel.add(AccessConfigWindowsLogInfoUpdate.EventLevelEnum.fromValue("information"));

listWindowsLogInfoEventLevel.add(AccessConfigWindowsLogInfoUpdate.EventLevelEnum.fromValue("warning"));

listWindowsLogInfoEventLevel.add(AccessConfigWindowsLogInfoUpdate.EventLevelEnum.fromValue("error"));

listWindowsLogInfoEventLevel.add(AccessConfigWindowsLogInfoUpdate.EventLevelEnum.fromValue("critical"));

listWindowsLogInfoEventLevel.add(AccessConfigWindowsLogInfoUpdate.EventLevelEnum.fromValue("verbose"));
        AccessConfigTimeOffsetCreate timeOffsetWindowsLogInfo = new AccessConfigTimeOffsetCreate();
        timeOffsetWindowsLogInfo.withOffset(7L)
```

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```
            .withUnit(AccessConfigTimeOffsetCreate.UnitEnum.fromValue("day"));
        List<AccessConfigWindowsLogInfoUpdate.CategorysEnum> listWindowsLogInfoCategorys = new
ArrayList<>();

listWindowsLogInfoCategorys.add(AccessConfigWindowsLogInfoUpdate.CategorysEnum.fromValue("Applicat
ion"));

listWindowsLogInfoCategorys.add(AccessConfigWindowsLogInfoUpdate.CategorysEnum.fromValue("System"
));
        AccessConfigWindowsLogInfoUpdate windowsLogInfoAccessConfigDetail = new
AccessConfigWindowsLogInfoUpdate();
        windowsLogInfoAccessConfigDetail.withCategorys(listWindowsLogInfoCategorys)
            .withTimeOffset(timeOffsetWindowsLogInfo)
            .withEventLevel(listWindowsLogInfoEventLevel);
        AccessConfigFormatMutil multiFormat = new AccessConfigFormatMutil();
        multiFormat.withMode(AccessConfigFormatMutil.ModeEnum.fromValue("regular"))
            .withValue("aaaa");
        AccessConfigFormatUpdate formatAccessConfigDetail = new AccessConfigFormatUpdate();
        formatAccessConfigDetail.withMulti(multiFormat);
        List<String> listAccessConfigDetailPaths = new ArrayList<>();
        listAccessConfigDetailPaths.add("/test/222");
        listAccessConfigDetailPaths.add("/test/111");
        AccessConfigDeatilUpdate accessConfigDetailbody = new AccessConfigDeatilUpdate();
        accessConfigDetailbody.withPaths(listAccessConfigDetailPaths)
            .withFormat(formatAccessConfigDetail)
            .withWindowsLogInfo(windowsLogInfoAccessConfigDetail);
        body.withAccessConfigTag(listbodyAccessConfigTag);
        body.withHostGroupInfo(hostGroupInfobody);
        body.withAccessConfigDetail(accessConfigDetailbody);
        body.withAccessConfigId("ed90802a-8475-4702-955e-e3ee16a5dde9");
        request.withBody(body);
        try {
            UpdateAccessConfigResponse response = client.updateAccessConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Modifying a Log Ingestion Configuration (for ECS)

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"
```

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```
credentials = BasicCredentials(ak, sk, projectId)

client = LtsClient.new_builder() \
    .with_credentials(credentials) \
    .with_region(LtsRegion.value_of("<YOUR REGION>")) \
    .build()

try:
    request = UpdateAccessConfigRequest()
    listAccessConfigTagbody = [
        AccessConfigTag(
            key="xxx",
            value="xxx"
        ),
        AccessConfigTag(
            key="xxx1",
            value="xxx1"
        )
    ]
    listHostGroupIdListHostGroupInfo = [
        "de4dbed4-a3bc-4877-a7ee-096a2a63e036"
    ]
    hostGroupInfobody = AccessConfigHostGroupIdList(
        host_group_id_list=listHostGroupIdListHostGroupInfo
    )
    listEventLevelWindowsLogInfo = [
        "information",
        "warning",
        "error",
        "critical",
        "verbose"
    ]
    timeOffsetWindowsLogInfo = AccessConfigTimeOffsetCreate(
        offset=7,
        unit="day"
    )
    listCategorysWindowsLogInfo = [
        "Application",
        "System"
    ]
    windowsLogInfoAccessConfigDetail = AccessConfigWindowsLogInfoUpdate(
        categorys=listCategorysWindowsLogInfo,
        time_offset=timeOffsetWindowsLogInfo,
        event_level=listEventLevelWindowsLogInfo
    )
    multiFormat = AccessConfigFormatMutil(
        mode="regular",
        value="aaaa"
    )
    formatAccessConfigDetail = AccessConfigFormatUpdate(
        multi=multiFormat
    )
    listPathsAccessConfigDetail = [
        "/test/222",
        "/test/111"
    ]
    accessConfigDetailbody = AccessConfigDeatilUpdate(
        paths=listPathsAccessConfigDetail,
        format=formatAccessConfigDetail,
        windows_log_info=windowsLogInfoAccessConfigDetail
    )
    request.body = UpdateAccessConfigRequestBody(
        access_config_tag=listAccessConfigTagbody,
        host_group_info=hostGroupInfobody,
        access_config_detail=accessConfigDetailbody,
        access_config_id="ed90802a-8475-4702-955e-e3ee16a5dde9"
    )
    response = client.update_access_config(request)
```

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```
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Modifying a Log Ingestion Configuration (for ECS)

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateAccessConfigRequest{}
    keyAccessConfigTag:= "xxx"
    valueAccessConfigTag:= "xxx"
    keyAccessConfigTag1:= "xxx1"
    valueAccessConfigTag1:= "xxx1"
    var listAccessConfigTagbody = []model.AccessConfigTag{
        {
            Key: &keyAccessConfigTag,
            Value: &valueAccessConfigTag,
        },
        {
            Key: &keyAccessConfigTag1,
            Value: &valueAccessConfigTag1,
        },
    }
    var listHostGroupIdListHostGroupInfo = []string{
        "de4dbed4-a3bc-4877-a7ee-096a2a63e036",
    }
    hostGroupInfobody := &model.AccessConfigHostGroupIdList{
        HostGroupIdList: listHostGroupIdListHostGroupInfo,
    }
    var listEventLevelWindowsLogInfo = []model.AccessConfigWindowsLogInfoUpdateEventLevel{
        model.GetAccessConfigWindowsLogInfoUpdateEventLevelEnum().INFORMATION,
        model.GetAccessConfigWindowsLogInfoUpdateEventLevelEnum().WARNING,
        model.GetAccessConfigWindowsLogInfoUpdateEventLevelEnum().ERROR,
        model.GetAccessConfigWindowsLogInfoUpdateEventLevelEnum().CRITICAL,
```

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```
        model.GetAccessConfigWindowsLogInfoUpdateEventLevelEnum().VERBOSE,
    }
    timeOffsetWindowsLogInfo := &model.AccessConfigTimeOffsetCreate{
        Offset: int64(7),
        Unit: model.GetAccessConfigTimeOffsetCreateUnitEnum().DAY,
    }
    var listCategorysWindowsLogInfo = []model.AccessConfigWindowsLogInfoUpdateCategorys{
        model.GetAccessConfigWindowsLogInfoUpdateCategorysEnum().APPLICATION,
        model.GetAccessConfigWindowsLogInfoUpdateCategorysEnum().SYSTEM,
    }
    windowsLogInfoAccessConfigDetail := &model.AccessConfigWindowsLogInfoUpdate{
        Categorys: &listCategorysWindowsLogInfo,
        TimeOffset: timeOffsetWindowsLogInfo,
        EventLevel: &listEventLevelWindowsLogInfo,
    }
    multiFormat := &model.AccessConfigFormatMutil{
        Mode: model.GetAccessConfigFormatMutilModeEnum().REGULAR,
        Value: "aaaa",
    }
    formatAccessConfigDetail := &model.AccessConfigFormatUpdate{
        Multi: multiFormat,
    }
    var listPathsAccessConfigDetail = []string{
        "/test/222",
        "/test/111",
    }
    accessConfigDetailbody := &model.AccessConfigDeatilUpdate{
        Paths: &listPathsAccessConfigDetail,
        Format: formatAccessConfigDetail,
        WindowsLogInfo: windowsLogInfoAccessConfigDetail,
    }
    request.Body = &model.UpdateAccessConfigRequestBody{
        AccessConfigTag: &listAccessConfigTagbody,
        HostGroupInfo: hostGroupInfobody,
        AccessConfigDetail: accessConfigDetailbody,
        AccessConfigId: "ed90802a-8475-4702-955e-e3ee16a5dde9",
    }
    response, err := client.UpdateAccessConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Ingestion configuration modified.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

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Error Codes

See **Error Codes**.

6.6 Log Transfer

6.6.1 Creating a Log Transfer Task (New Version)

Function

This API is used to transfer logs to OBS, DIS, and DMS.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/transfers

Table 6-308 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. Minimum: **32** Maximum: **32**

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Request Parameters

Table 6-309 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-310 Request body parameters

Parameter	Mandatory	Type	Description
log_group_id	Yes	String	Log group ID.
log_streams	Yes	Array of **LogStreams** objects	Log stream ID list.
log_transfer_info	Yes	**log_transfer_info** object	Log transfer information.

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Table 6-311 LogStreams

Parameter	Mandatory	Type	Description
log_stream_id	Yes	String	Log stream ID.
log_stream_name	No	String	Log stream name.

Table 6-312 log_transfer_info

Parameter	Mandatory	Type	Description
log_transfer_type	Yes	String	Log transfer type. You can transfer logs to OBS, DIS, and DMS.
log_transfer_mode	Yes	String	Log transfer mode. **cycle** indicates periodical transfer, and **realTime** indicates real-time transfer. **cycle** is available to OBS transfer tasks and **realTime** is available to DIS and DMS transfer tasks.
log_storage_format	Yes	String	Log transfer format. The value can be **RAW** or **JSON**. **RAW** indicates the raw log format, and **JSON** indicates the JSON format.
log_transfer_status	Yes	String	Log transfer status. The value can be **ENABLE** (log transfer is enabled), **DISABLE** (log transfer is disabled), or **EXCEPTION** (log transfer is abnormal).
log_agency_transfer	No	**log_agency_transfer** object	Information about delegated log transfer. This parameter is required if you transfer logs for another account.
log_transfer_detail	Yes	**log_transfer_detail** object	Log transfer details.

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Table 6-313 log_agency_transfer

Parameter	Mandatory	Type	Description
agency_domain_id	Yes	String	**Definition** Account ID of the delegator. **Range** N/A
agency_domain_name	Yes	String	**Definition** Account name of the delegator. **Range** N/A
agency_name	Yes	String	**Definition** Name of the agency created by the delegator. **Range** N/A
agency_project_id	Yes	String	**Definition** Project ID of the delegator. **Range** N/A
be_agency_domain_id	Yes	String	**Definition** Account ID of the delegated party (ID of the account that created the log transfer task). **Range** N/A
be_agency_project_id	Yes	String	**Definition** Project ID of the delegated party (ID of the project for which the transfer task is created). **Range** N/A

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Table 6-314 log_transfer_detail

Parameter	Mandatory	Type	Description
obs_period	Yes	Integer	**Definition** Length of the transfer interval for an OBS transfer task. This parameter is required when you create an OBS transfer task. The log transfer interval is specified by the combination of the values of **obs_period** and **obs_period_unit**, and must be set to one of the following: **2min**, **5min**, **30min**, **1hour**, **3hour**, **6hour**, or **12hour**. **Constraints** N/A **Range** 1,2,3,5,6,12,30
obs_period_unit	Yes	String	**Definition** Unit of the transfer interval for an OBS transfer task. This parameter is required when you create an OBS transfer task. The log transfer interval is specified by the combination of the values of **obs_period** and **obs_period_unit**, and must be set to one of the following: **2min**, **5min**, **30min**, **1hour**, **3hour**, **6hour**, or **12hour**. **Constraints** N/A **Range** **min** or **hour**
obs_bucket_name	Yes	String	**Definition** OBS bucket name. This parameter is required when you create an OBS transfer task. **Constraints** N/A

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Parameter	Mandatory	Type	Description
obs_encrypted_id	No	String	**Definition** KMS key ID for an OBS transfer task. This parameter is required if encryption is enabled for the target OBS bucket. **Constraints** N/A
obs_dir_prefix_name	No	String	**Definition** Custom transfer path of an OBS transfer task. This parameter is optional. **Constraints** N/A
obs_prefix_name	No	String	**Definition** Transfer file prefix of an OBS transfer task. This parameter is optional. **Constraints** N/A
obs_time_zone	No	String	**Definition** Time zone for an OBS transfer task. For details, see Time Zone List for OBS Transfer. If this parameter is specified, **obs_time_zone_id** must also be specified. **Constraints** N/A
obs_time_zone_id	No	String	**Definition** ID of the time zone for an OBS transfer task. For details, see Time Zone List for OBS Transfer. If this parameter is specified, **obs_time_zone** must also be specified. **Constraints** N/A

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Parameter	Mandatory	Type	Description
dis_id	No	String	**Definition** DIS stream ID. This parameter is required when you create a DIS transfer task. **Constraints** N/A
dis_name	No	String	**Definition** DIS stream name. This parameter is required when you create a DIS transfer task. **Constraints** N/A
kafka_id	No	String	**Definition** Kafka ID of a DMS transfer task. This parameter is required when you create a DMS transfer task. Before creating a DMS transfer task, register your Kafka instance with Kafka ID and Kafka topic first. For details, see section "Registering a DMS Kafka Instance." **Constraints** N/A
kafka_topic	No	String	**Definition** Kafka topic of a DMS transfer task. This parameter is required when you create a DMS transfer task. Before creating a DMS transfer task, register your Kafka instance with Kafka ID and Kafka topic first. For details, see section "Registering a DMS Kafka Instance." **Constraints** N/A
obs_eps_id	No	String	**Definition** Enterprise project ID of an OBS transfer task. **Constraints** N/A

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Parameter	Mandatory	Type	Description
obs_encrypted_enable	No	Boolean	**Definition** Whether OBS bucket encryption is enabled. **Constraints** N/A
tags	No	Array of strings	**Definition** If tag delivery is enabled, this field must contain the following host information: **hostIP**, **hostId**, **hostName**, **pathFile**, and **collectTime**. The public fields are **logStreamName**, **regionName**, **logGroupName**, and **projectId**, which are optional. The field for enabling tag transfer is **streamTag**, which is optional. **Constraints** N/A
lts_tags	No	Array of strings	**Definition** Whether to transfer the tag field. This parameter is optional when the JSON format is selected for DMS transfer. **Constraints** N/A
stream_tags	No	Array of strings	**Definition** Whether to transfer the log stream tag field. This parameter is optional when the JSON format is selected for DMS transfer. **Constraints** N/A

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Parameter	Mandatory	Type	Description
struct_fields	No	Array of strings	**Definition** Whether to transfer the structured fields. This parameter is optional when the JSON format is selected for DMS transfer. **Constraints** N/A
invalid_field_value	No	String	**Definition** Whether to enable the invalid field fill function. This parameter is optional when the JSON format is selected for DMS transfer. **Constraints** N/A

Response Parameters

Status code: 200

Table 6-315 Response body parameters

Parameter	Type	Description
log_group_id	String	**Definition** ID of the created log group. **Range** N/A
log_group_name	String	**Definition** Name of the created log group. **Range** N/A
log_streams	Array of **log_streams** objects	**Definition** Details about log streams in the log group.
log_transfer_id	String	**Definition** ID of the created log transfer task. **Range** N/A

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Parameter	Type	Description
log_transfer_info	**log_transfer_info_RespBody** object	**Definition** Log transfer information.

Table 6-316 log_streams

Parameter	Type	Description
log_stream_id	String	**Definition** Log stream ID. **Range** N/A
log_stream_name	String	**Definition** Log stream name. **Range** N/A

Table 6-317 log_transfer_info_RespBody

Parameter	Type	Description
log_agency_transfer	**log_agency_transfer** object	**Definition** Information about the transfer agency. If the log source of transfer is another account, logs generated by the delegator account is transferred. Ensure that the delegator has created an agency for log transfer delegation in IAM.
log_create_time	Integer	**Definition** Time when the log transfer task was created. **Range** **0** to **2147483647**

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Parameter	Type	Description
log_storage_format	String	**Definition** Log transfer format. The value can be **RAW** (raw logs) or **JSON**. The available format options depend on the selected transfer destination. When the transfer destination is OBS or DIS, **JSON** and **RAM** are supported. When the transfer destination is DMS, only **RAW** is supported. **Range** • **RAW** • **JSON**
log_transfer_detail	**TransferDetail** object	**Definition** Log transfer information.
log_transfer_mode	String	**Definition** Log transfer mode. The value can be **cycle** (periodical transfer) and **realTime** (real-time transfer). The available mode options depend on the selected transfer destination. If the transfer destination is OBS, the transfer mode can be **cycle**. If the transfer destination is DIS or DMS, the transfer mode can be **realTime**. **Range** • **cycle** • **realTime**
log_transfer_status	String	**Definition** Log transfer status. **Range** • **ENABLE**: Log transfer is enabled. • **DISABLE**: Log transfer is disabled. • **EXCEPTION**: Log transfer is abnormal.
log_transfer_type	String	**Definition** Log transfer type. **Range** • **OBS**: Logs are transferred to OBS. • **DIS**: Logs are transferred to DIS. • **DMS**: Logs are transferred to DMS.

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Table 6-318 log_agency_transfer

Parameter	Type	Description
agency_domain_id	String	**Definition** Account ID of the delegator. **Range** N/A
agency_domain_name	String	**Definition** Account name of the delegator. **Range** N/A
agency_name	String	**Definition** Name of the agency created by the delegator. **Range** N/A
agency_project_id	String	**Definition** Project ID of the delegator. **Range** N/A
be_agency_domain_id	String	**Definition** Account ID of the delegated party (ID of the account that created the log transfer task). **Range** N/A
be_agency_project_id	String	**Definition** Project ID of the delegated party (ID of the project for which the transfer task is created). **Range** N/A

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Table 6-319 TransferDetail

Parameter	Type	Description
obs_period	Integer	**Definition** Time for transferring logs to OBS. This parameter is returned when the transfer destination is OBS. **Range** **1**, **2**, **3**, **5**, **6**, **2**, **30**
obs_period_unit	String	**Definition** Time unit for transferring data to OBS. This parameter is returned when the transfer destination is OBS. **Range** • min • **hour**
obs_bucket_name	String	**Definition** Name of the OBS bucket to which logs are transferred. This parameter is returned when the transfer destination is OBS. **Range** N/A
obs_encrypted_id	String	**Definition** KMS key ID of the OBS bucket to which logs are transferred. This parameter is returned when logs are transferred to an encrypted OBS bucket. **Range** N/A
obs_dir_pre_fix_name	String	**Definition** Custom transfer path to which logs are transferred to OBS. This parameter is returned when the transfer destination is OBS. Logs will be transferred to this custom path to separate log files from different log streams. **Range** N/A

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Parameter	Type	Description
obs_prefix_name	String	**Definition** File name prefix of the log files transferred to an OBS bucket. This parameter is returned when the transfer destination is OBS. **Range** N/A
obs_time_zone	String	**Definition** Time zone for an OBS transfer task. For details, see **Time Zone List for OBS Transfer**. **Range** N/A
obs_time_zone_id	String	**Definition** Time zone ID for an OBS transfer task. For details, see **Time Zone List for OBS Transfer**. **Range** N/A
dis_id	String	**Definition** ID of the DIS transfer channel to which logs are transferred. This parameter is returned when logs are transferred to DIS. **Range** N/A
dis_name	String	**Definition** Name of the DIS transfer channel to which logs are transferred. This parameter is returned when logs are transferred to DIS. **Range** N/A

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Parameter	Type	Description
kafka_id	String	**Definition** Kafka ID for transferring logs to DMS. This parameter is returned when logs are transferred to DMS. Before creating a DMS transfer task, register your Kafka instance with Kafka ID and Kafka topic first. For details, see **Registering a DMS Kafka Instance**. **Range** N/A
kafka_topic	String	**Definition** Kafka topic for transferring logs to DMS. This parameter is returned when logs are transferred to DMS. Before creating a DMS transfer task, register your Kafka instance with Kafka ID and Kafka topic first. For details, see **Registering a DMS Kafka Instance**. **Range** N/A
obs_transfer_path	String	**Definition** OBS bucket path, which is the log transfer destination. **Range** N/A
obs_encrypted_enable	Boolean	**Definition** Whether OBS bucket encryption is enabled. **Range** • **true** • false
tags	Array of strings	**Definition** Whether filtering by tag fields is enabled. **Range** N/A

Status code: 400

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Table 6-320 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-321 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

- Transferring logs to OBS

```
POST https://{endpoint}/v2/{project_id}/transfers

{
  "log_group_id" : "8ba9e43f-be60-4d8c-9015-xxxxxxxxxxxx",
  "log_streams" : [ {
    "log_stream_id" : "c776e1a7-8548-430a-afe5-xxxxxxxxxxxx"
  } ],
  "log_transfer_info" : {
    "log_transfer_type" : "OBS",
    "log_transfer_mode" : "xxxxx",
    "log_storage_format" : "XXX",
    "log_transfer_status" : "XXXXX",
    "log_agency_transfer" : {
      "agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
      "agency_domain_name" : "paas_apm_z004xxxxx_xx",
      "agency_name" : "test20210325",
```

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```
    "agency_project_id" : "2a473356cca5487f8373be891bfxxxxx",
    "be_agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
    "be_agency_project_id" : "2a473356cca5487f8373be891bfxxxxx"
   },
   "log_transfer_detail" : {
    "obs_period" : 2,
    "obs_period_unit" : "min",
    "obs_bucket_name" : "xxxxx",
    "obs_encrypted_id" : "1bd90032-1424-481f-8558-ba49854xxxxx",
    "obs_dir_pre_fix_name" : "/xx",
    "obs_prefix_name" : "xxxxx",
    "obs_time_zone" : "UTC+01:00",
    "obs_time_zone_id" : "Africa/Lagos"
   }
  }
}
```

- Creating a DIS transfer task

```
POST https://{endpoint}/v2/{project_id}/transfers

{
 "log_group_id" : "8ba9e43f-be60-4d8c-9015-xxxxxxxxxxxx",
 "log_streams" : [ {
  "log_stream_id" : "c776e1a7-8548-430a-afe5-xxxxxxxxxxxx"
 } ],
 "log_transfer_info" : {
  "log_transfer_type" : "DIS",
  "log_transfer_mode" : "xxxxx",
  "log_storage_format" : "XXX",
  "log_transfer_status" : "XXXXX",
  "log_agency_transfer" : {
   "agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
   "agency_domain_name" : "paas_apm_z004xxxxx_xx",
   "agency_name" : "test20210325",
   "agency_project_id" : "2a473356cca5487f8373be891bfxxxxx",
   "be_agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
   "be_agency_project_id" : "2a473356cca5487f8373be891bfxxxxx"
  },
  "log_transfer_detail" : {
   "dis_id" : "i1y8vfMTvf4LQzxxxxx",
   "dis_name" : "xxxxx"
  }
 }
}
```

Example Responses

Status code: 200

The log transfer task is created.

- The following parameters are returned for an OBS transfer task:

```
{
 "log_group_id" : "9a7e2183-2d6d-4732-9a9b-e897fd4e49e0",
 "log_group_name" : "lts-group-kafka",
 "log_streams" : [ {
  "log_stream_id" : "839dac89-35af-4db2-ab4a-a7dda0d0d3f8",
  "log_stream_name" : "lts-topic-kafka"
 } ],
 "log_transfer_id" : "ddced522-233a-4181-a5fc-7b458c819afc",
 "log_transfer_info" : {
  "log_create_time" : 1634802241847,
  "log_storage_format" : "JSON",
  "log_agency_transfer" : {
   "agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
   "agency_domain_name" : "paas_apm_z004xxxxx_xx",
   "agency_name" : "test20210325",
   "agency_project_id" : "2a473356cca5487f8373be891bfxxxxx",
```

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```
    "be_agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
    "be_agency_project_id" : "2a473356cca5487f8373be891bfxxxxx"
   },
   "log_transfer_detail" : {
    "obs_period" : 2,
    "obs_prefix_name" : "",
    "obs_period_unit" : "min",
    "obs_transfer_path" : "/0002/LogTanks/cn-north-7/",
    "obs_bucket_name" : "0002",
    "obs_encrypted_enable" : false,
    "obs_dir_pre_fix_name" : "",
    "obs_time_zone" : "UTC+01:00",
    "obs_time_zone_id" : "Africa/Lagos",
    "tags" : [ ]
   },
   "log_transfer_mode" : "cycle",
   "log_transfer_status" : "ENABLE",
   "log_transfer_type" : "OBS"
  }
}
```


- The following parameters are returned for a DIS transfer task:


```
{
 "log_group_id" : "9a7e2183-2d6d-4732-9a9b-e897fd4e49e0",
 "log_group_name" : "lts-group-kafka",
 "log_streams" : [ {
  "log_stream_id" : "839dac89-35af-4db2-ab4a-a7dda0d0d3f8",
  "log_stream_name" : "lts-topic-kafka"
 } ],
 "log_transfer_id" : "ddced522-233a-4181-a5fc-7b458c819afc",
 "log_transfer_info" : {
  "log_create_time" : 1634802241847,
  "log_storage_format" : "JSON",
  "log_agency_transfer" : {
   "agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
   "agency_domain_name" : "paas_apm_z004xxxxx_xx",
   "agency_name" : "test20210325",
   "agency_project_id" : "2a473356cca5487f8373be891bfxxxxx",
   "be_agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
   "be_agency_project_id" : "2a473356cca5487f8373be891bfxxxxx"
  },
  "log_transfer_detail" : {
   "dis_id" : "xxxxx",
   "dis_name" : "xxxxxx",
   "tags" : [ ]
  },
  "log_transfer_mode" : "cycle",
  "log_transfer_status" : "ENABLE",
  "log_transfer_type" : "OBS"
 }
}
```


- The following parameters are returned for a DMS transfer task:


```
{
 "log_group_id" : "9a7e2183-2d6d-4732-9a9b-e897fd4e49e0",
 "log_group_name" : "lts-group-kafka",
 "log_streams" : [ {
  "log_stream_id" : "839dac89-35af-4db2-ab4a-a7dda0d0d3f8",
  "log_stream_name" : "lts-topic-kafka"
 } ],
 "log_transfer_id" : "ddced522-233a-4181-a5fc-7b458c819afc",
 "log_transfer_info" : {
  "log_create_time" : 1634802241847,
  "log_storage_format" : "JSON",
  "log_agency_transfer" : {
   "agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
   "agency_domain_name" : "paas_apm_z004xxxxx_xx",
   "agency_name" : "test20210325",
   "agency_project_id" : "2a473356cca5487f8373be891bfxxxxx",
   "be_agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
```


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```
    "be_agency_project_id" : "2a473356cca5487f8373be891bfxxxxx"
   },
   "log_transfer_detail" : {
    "kafka_id" : "xxxxxx",
    "kafka_topic" : "xxxxx",
    "tags" : [ ]
   },
   "log_transfer_mode" : "cycle",
   "log_transfer_status" : "ENABLE",
   "log_transfer_type" : "OBS"
  }
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.0207",
  "error_msg" : "The log stream is associated by transfer"
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0207",
  "error_msg" : "The log stream is associated by transfer"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

- Transferring logs to OBS

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateTransferSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
```

```
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateTransferRequest request = new CreateTransferRequest();
        CreateTransferRequestBody body = new CreateTransferRequestBody();
        TransferDetail logTransferDetailLogTransferInfo = new TransferDetail();
        logTransferDetailLogTransferInfo.withObsPeriod(TransferDetail.ObsPeriodEnum.NUMBER_2)
            .withObsEncryptedId("1bd90032-1424-481f-8558-ba49854xxxxx")
            .withObsPrefixName("xxxxx")
            .withObsPeriodUnit("min")
            .withObsBucketName("xxxxx")
            .withObsDirPreFixName("/xx")
            .withObsTimeZone("UTC+01:00")
            .withObsTimeZoneId("Africa/Lagos");
        CreateTransferRequestBodyLogTransferInfoLogAgencyTransfer logAgencyTransferLogTransferInfo
= new CreateTransferRequestBodyLogTransferInfoLogAgencyTransfer();
        logAgencyTransferLogTransferInfo.withAgencyDomainId("1d26cc8c86a840e28a4f8d0d078xxxxx")
            .withAgencyDomainName("paas_apm_z004xxxxx_xx")
            .withAgencyName("test20210325")
            .withAgencyProjectId("2a473356cca5487f8373be891bfxxxxx")
            .withBeAgencyDomainId("1d26cc8c86a840e28a4f8d0d078xxxxx")
            .withBeAgencyProjectId("2a473356cca5487f8373be891bfxxxxx");
        CreateTransferRequestBodyLogTransferInfo logTransferInfobody = new
CreateTransferRequestBodyLogTransferInfo();
        logTransferInfobody.withLogTransferType("OBS")
            .withLogTransferMode(CreateTransferRequestBodyLogTransferInfo.LogTransferModeEnum.from
Value("xxxxx"))
            .withLogStorageFormat(CreateTransferRequestBodyLogTransferInfo.LogStorageFormatEnum.fr
omValue("XXX"))
            .withLogTransferStatus(CreateTransferRequestBodyLogTransferInfo.LogTransferStatusEnum.fro
mValue("XXXXX"))
            .withLogAgencyTransfer(logAgencyTransferLogTransferInfo)
            .withLogTransferDetail(logTransferDetailLogTransferInfo);
        List<CreateTransferRequestBodyLogStreams> listbodyLogStreams = new ArrayList<>();
        listbodyLogStreams.add(
            new CreateTransferRequestBodyLogStreams()
                .withLogStreamId("c776e1a7-8548-430a-afe5-xxxxxxxxxxxx")
        );
        body.withLogTransferInfo(logTransferInfobody);
        body.withLogStreams(listbodyLogStreams);
        body.withLogGroupId("8ba9e43f-be60-4d8c-9015-xxxxxxxxxxxx");
        request.withBody(body);
        try {
            CreateTransferResponse response = client.createTransfer(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- Creating a DIS transfer task

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
```

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```
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateTransferSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateTransferRequest request = new CreateTransferRequest();
        CreateTransferRequestBody body = new CreateTransferRequestBody();
        TransferDetail logTransferDetailLogTransferInfo = new TransferDetail();
        logTransferDetailLogTransferInfo.withDisId("i1y8vfMTvf4LQzxxxxx")
            .withDisName("xxxxx");
        CreateTransferRequestBodyLogTransferInfoLogAgencyTransfer logAgencyTransferLogTransferInfo = new CreateTransferRequestBodyLogTransferInfoLogAgencyTransfer();
        logAgencyTransferLogTransferInfo.withAgencyDomainId("1d26cc8c86a840e28a4f8d0d078xxxxx")
            .withAgencyDomainName("paas_apm_z004xxxxx_xx")
            .withAgencyName("test20210325")
            .withAgencyProjectId("2a473356cca5487f8373be891bfxxxxx")
            .withBeAgencyDomainId("1d26cc8c86a840e28a4f8d0d078xxxxx")
            .withBeAgencyProjectId("2a473356cca5487f8373be891bfxxxxx");
        CreateTransferRequestBodyLogTransferInfo logTransferInfobody = new CreateTransferRequestBodyLogTransferInfo();
        logTransferInfobody.withLogTransferType("DIS")
            .withLogTransferMode(CreateTransferRequestBodyLogTransferInfo.LogTransferModeEnum.fromValue("xxxxx"))
            .withLogStorageFormat(CreateTransferRequestBodyLogTransferInfo.LogStorageFormatEnum.fromValue("XXX"))
            .withLogTransferStatus(CreateTransferRequestBodyLogTransferInfo.LogTransferStatusEnum.fromValue("XXXXX"))
            .withLogAgencyTransfer(logAgencyTransferLogTransferInfo)
            .withLogTransferDetail(logTransferDetailLogTransferInfo);
        List<CreateTransferRequestBodyLogStreams> listbodyLogStreams = new ArrayList<>();
        listbodyLogStreams.add(
            new CreateTransferRequestBodyLogStreams()
                .withLogStreamId("c776e1a7-8548-430a-afe5-xxxxxxxxxxxx")
        );
        body.withLogTransferInfo(logTransferInfobody);
        body.withLogStreams(listbodyLogStreams);
        body.withLogGroupId("8ba9e43f-be60-4d8c-9015-xxxxxxxxxxxx");
        request.withBody(body);
        try {
            CreateTransferResponse response = client.createTransfer(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
```

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```
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

- Transferring logs to OBS

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateTransferRequest()
        logTransferDetailLogTransferInfo = TransferDetail(
            obs_period=2,
            obs_encrypted_id="1bd90032-1424-481f-8558-ba49854xxxxx",
            obs_prefix_name="xxxxx",
            obs_period_unit="min",
            obs_bucket_name="xxxxx",
            obs_dir_pre_fix_name="/xx",
            obs_time_zone="UTC+01:00",
            obs_time_zone_id="Africa/Lagos"
        )
        logAgencyTransferLogTransferInfo = CreateTransferRequestBodyLogTransferInfoLogAgencyTransfer(
            agency_domain_id="1d26cc8c86a840e28a4f8d0d078xxxxx",
            agency_domain_name="paas_apm_z004xxxxx_xx",
            agency_name="test20210325",
            agency_project_id="2a473356cca5487f8373be891bfxxxxx",
            be_agency_domain_id="1d26cc8c86a840e28a4f8d0d078xxxxx",
            be_agency_project_id="2a473356cca5487f8373be891bfxxxxx"
        )
        logTransferInfobody = CreateTransferRequestBodyLogTransferInfo(
            log_transfer_type="OBS",
            log_transfer_mode="xxxxx",
            log_storage_format="XXX",
            log_transfer_status="XXXXX",
            log_agency_transfer=logAgencyTransferLogTransferInfo,
            log_transfer_detail=logTransferDetailLogTransferInfo
```

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```
        )
        listLogStreamsbody = [
            CreateTransferRequestBodyLogStreams(
                log_stream_id="c776e1a7-8548-430a-afe5-xxxxxxxxxxxx"
            )
        ]
        request.body = CreateTransferRequestBody(
            log_transfer_info=logTransferInfobody,
            log_streams=listLogStreamsbody,
            log_group_id="8ba9e43f-be60-4d8c-9015-xxxxxxxxxxxx"
        )
        response = client.create_transfer(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- Creating a DIS transfer task

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateTransferRequest()
        logTransferDetailLogTransferInfo = TransferDetail(
            dis_id="i1y8vfMTvf4LQzxxxxx",
            dis_name="xxxxx"
        )
        logAgencyTransferLogTransferInfo = CreateTransferRequestBodyLogTransferInfoLogAgencyTransfer(
            agency_domain_id="1d26cc8c86a840e28a4f8d0d078xxxxx",
            agency_domain_name="paas_apm_z004xxxxx_xx",
            agency_name="test20210325",
            agency_project_id="2a473356cca5487f8373be891bfxxxxx",
            be_agency_domain_id="1d26cc8c86a840e28a4f8d0d078xxxxx",
            be_agency_project_id="2a473356cca5487f8373be891bfxxxxx"
        )
        logTransferInfobody = CreateTransferRequestBodyLogTransferInfo(
            log_transfer_type="DIS",
            log_transfer_mode="xxxxx",
            log_storage_format="XXX",
            log_transfer_status="XXXXX",
            log_agency_transfer=logAgencyTransferLogTransferInfo,
            log_transfer_detail=logTransferDetailLogTransferInfo
        )
        listLogStreamsbody = [
```

```
            CreateTransferRequestBodyLogStreams(
                log_stream_id="c776e1a7-8548-430a-afe5-xxxxxxxxxxxx"
            )
        ]
        request.body = CreateTransferRequestBody(
            log_transfer_info=logTransferInfobody,
            log_streams=listLogStreamsbody,
            log_group_id="8ba9e43f-be60-4d8c-9015-xxxxxxxxxxxx"
        )
        response = client.create_transfer(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

- Transferring logs to OBS

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateTransferRequest{}
    obsEncryptedIdLogTransferDetail:= "1bd90032-1424-481f-8558-ba49854xxxxx"
    obsPrefixNameLogTransferDetail:= "xxxxx"
    obsDirPreFixNameLogTransferDetail:= "/xx"
    obsTimeZoneLogTransferDetail:= "UTC+01:00"
    obsTimeZoneIdLogTransferDetail:= "Africa/Lagos"
    logTransferDetailLogTransferInfo := &model.TransferDetail{
        ObsPeriod: model.GetTransferDetailObsPeriodEnum().E_2,
        ObsEncryptedId: &obsEncryptedIdLogTransferDetail,
        ObsPrefixName: &obsPrefixNameLogTransferDetail,
        ObsPeriodUnit: "min",
        ObsBucketName: "xxxxx",
        ObsDirPreFixName: &obsDirPreFixNameLogTransferDetail,
        ObsTimeZone: &obsTimeZoneLogTransferDetail,
        ObsTimeZoneId: &obsTimeZoneIdLogTransferDetail,
    }
```

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```
    logAgencyTransferLogTransferInfo :=
&model.CreateTransferRequestBodyLogTransferInfoLogAgencyTransfer{
        AgencyDomainId: "1d26cc8c86a840e28a4f8d0d078xxxxx",
        AgencyDomainName: "paas_apm_z004xxxxx_xx",
        AgencyName: "test20210325",
        AgencyProjectId: "2a473356cca5487f8373be891bfxxxxx",
        BeAgencyDomainId: "1d26cc8c86a840e28a4f8d0d078xxxxx",
        BeAgencyProjectId: "2a473356cca5487f8373be891bfxxxxx",
    }
    logTransferInfobody := &model.CreateTransferRequestBodyLogTransferInfo{
        LogTransferType: "OBS",
        LogTransferMode:
model.GetCreateTransferRequestBodyLogTransferInfoLogTransferModeEnum().XXXXX,
        LogStorageFormat:
model.GetCreateTransferRequestBodyLogTransferInfoLogStorageFormatEnum().XXX,
        LogTransferStatus:
model.GetCreateTransferRequestBodyLogTransferInfoLogTransferStatusEnum().XXXXX,
        LogAgencyTransfer: logAgencyTransferLogTransferInfo,
        LogTransferDetail: logTransferDetailLogTransferInfo,
    }
    var listLogStreamsbody = []model.CreateTransferRequestBodyLogStreams{
        {
            LogStreamId: "c776e1a7-8548-430a-afe5-xxxxxxxxxxxx",
        },
    }
    request.Body = &model.CreateTransferRequestBody{
        LogTransferInfo: logTransferInfobody,
        LogStreams: listLogStreamsbody,
        LogGroupId: "8ba9e43f-be60-4d8c-9015-xxxxxxxxxxxx",
    }
    response, err := client.CreateTransfer(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- Creating a DIS transfer task

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
```

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```
        Build())

    request := &model.CreateTransferRequest{}
    disIdLogTransferDetail:= "i1y8vfMTvf4LQzxxxxx"
    disNameLogTransferDetail:= "xxxxx"
    logTransferDetailLogTransferInfo := &model.TransferDetail{
        DisId: &disIdLogTransferDetail,
        DisName: &disNameLogTransferDetail,
    }
    logAgencyTransferLogTransferInfo :=
&model.CreateTransferRequestBodyLogTransferInfoLogAgencyTransfer{
        AgencyDomainId: "1d26cc8c86a840e28a4f8d0d078xxxxx",
        AgencyDomainName: "paas_apm_z004xxxxx_xx",
        AgencyName: "test20210325",
        AgencyProjectId: "2a473356cca5487f8373be891bfxxxxx",
        BeAgencyDomainId: "1d26cc8c86a840e28a4f8d0d078xxxxx",
        BeAgencyProjectId: "2a473356cca5487f8373be891bfxxxxx",
    }
    logTransferInfobody := &model.CreateTransferRequestBodyLogTransferInfo{
        LogTransferType: "DIS",
        LogTransferMode:
model.GetCreateTransferRequestBodyLogTransferInfoLogTransferModeEnum().XXXXX,
        LogStorageFormat:
model.GetCreateTransferRequestBodyLogTransferInfoLogStorageFormatEnum().XXX,
        LogTransferStatus:
model.GetCreateTransferRequestBodyLogTransferInfoLogTransferStatusEnum().XXXXX,
        LogAgencyTransfer: logAgencyTransferLogTransferInfo,
        LogTransferDetail: logTransferDetailLogTransferInfo,
    }
    var listLogStreamsbody = []model.CreateTransferRequestBodyLogStreams{
        {
            LogStreamId: "c776e1a7-8548-430a-afe5-xxxxxxxxxxxx",
        },
    }
    request.Body = &model.CreateTransferRequestBody{
        LogTransferInfo: logTransferInfobody,
        LogStreams: listLogStreamsbody,
        LogGroupId: "8ba9e43f-be60-4d8c-9015-xxxxxxxxxxxx",
    }
    response, err := client.CreateTransfer(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The log transfer task is created.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

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Error Codes

See **Error Codes**.

6.6.2 Deleting a Log Transfer Task

Function

This API is used to delete a log transfer task, such as an OBS, DIS, or DMS transfer task.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/{project_id}/transfers

Table 6-322 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-323 Query Parameters

Parameter	Mandatory	Type	Description
log_transfer_id	Yes	String	**Definition** Log transfer task ID. You can obtain it by calling either of the following APIs: 1. API for querying a log transfer task 2. API for creating a log transfer task **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-324 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

Table 6-325 Response body parameters

Parameter	Type	Description
log_group_id	String	**Definition** ID of the created log group. **Range** N/A
log_group_name	String	**Definition** Name of the created log group. **Range** N/A
log_streams	Array of **log_streams** objects	**Definition** Details about log streams in the log group.
log_transfer_id	String	**Definition** ID of the created log transfer task. **Range** N/A
log_transfer_info	**log_transfer_info_RespBody** object	**Definition** Log transfer information.

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Table 6-326 log_streams

Parameter	Type	Description
log_stream_id	String	**Definition** Log stream ID. **Range** N/A
log_stream_name	String	**Definition** Log stream name. **Range** N/A

Table 6-327 log_transfer_info_RespBody

Parameter	Type	Description
log_agency_transfer	**log_agency_transfer** object	**Definition** Information about the transfer agency. If the log source of transfer is another account, logs generated by the delegator account is transferred. Ensure that the delegator has created an agency for log transfer delegation in IAM.
log_create_time	Integer	**Definition** Time when the log transfer task was created. **Range** **0** to **2147483647**
log_storage_format	String	**Definition** Log transfer format. The value can be **RAW** (raw logs) or **JSON**. The available format options depend on the selected transfer destination. When the transfer destination is OBS or DIS, **JSON** and **RAM** are supported. When the transfer destination is DMS, only **RAW** is supported. **Range** • **RAW** • **JSON**

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Parameter	Type	Description
log_transfer_detail	TransferDetail object	**Definition** Log transfer information.
log_transfer_mode	String	**Definition** Log transfer mode. The value can be **cycle** (periodical transfer) and **realTime** (real-time transfer). The available mode options depend on the selected transfer destination. If the transfer destination is OBS, the transfer mode can be **cycle**. If the transfer destination is DIS or DMS, the transfer mode can be **realTime**. **Range** • **cycle** • **realTime**
log_transfer_status	String	**Definition** Log transfer status. **Range** • **ENABLE**: Log transfer is enabled. • **DISABLE**: Log transfer is disabled. • **EXCEPTION**: Log transfer is abnormal.
log_transfer_type	String	**Definition** Log transfer type. **Range** • **OBS**: Logs are transferred to OBS. • **DIS**: Logs are transferred to DIS. • **DMS**: Logs are transferred to DMS.

Table 6-328 log_agency_transfer

Parameter	Type	Description
agency_domain_id	String	**Definition** Account ID of the delegator. **Range** N/A

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Parameter	Type	Description
agency_domain_name	String	**Definition** Account name of the delegator. **Range** N/A
agency_name	String	**Definition** Name of the agency created by the delegator. **Range** N/A
agency_project_id	String	**Definition** Project ID of the delegator. **Range** N/A
be_agency_domain_id	String	**Definition** Account ID of the delegated party (ID of the account that created the log transfer task). **Range** N/A
be_agency_project_id	String	**Definition** Project ID of the delegated party (ID of the project for which the transfer task is created). **Range** N/A

Table 6-329 TransferDetail

Parameter	Type	Description
obs_period	Integer	**Definition** Time for transferring logs to OBS. This parameter is returned when the transfer destination is OBS. **Range** **1**, **2**, **3**, **5**, **6**, **2**, **30**

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Parameter	Type	Description
obs_period_unit	String	**Definition** Time unit for transferring data to OBS. This parameter is returned when the transfer destination is OBS. **Range** • min • **hour**
obs_bucket_name	String	**Definition** Name of the OBS bucket to which logs are transferred. This parameter is returned when the transfer destination is OBS. **Range** N/A
obs_encrypted_id	String	**Definition** KMS key ID of the OBS bucket to which logs are transferred. This parameter is returned when logs are transferred to an encrypted OBS bucket. **Range** N/A
obs_dir_pre_fix_name	String	**Definition** Custom transfer path to which logs are transferred to OBS. This parameter is returned when the transfer destination is OBS. Logs will be transferred to this custom path to separate log files from different log streams. **Range** N/A
obs_prefix_name	String	**Definition** File name prefix of the log files transferred to an OBS bucket. This parameter is returned when the transfer destination is OBS. **Range** N/A

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Parameter	Type	Description
obs_time_zone	String	**Definition** Time zone for an OBS transfer task. For details, see **Time Zone List for OBS Transfer**. **Range** N/A
obs_time_zone_id	String	**Definition** Time zone ID for an OBS transfer task. For details, see **Time Zone List for OBS Transfer**. **Range** N/A
dis_id	String	**Definition** ID of the DIS transfer channel to which logs are transferred. This parameter is returned when logs are transferred to DIS. **Range** N/A
dis_name	String	**Definition** Name of the DIS transfer channel to which logs are transferred. This parameter is returned when logs are transferred to DIS. **Range** N/A
kafka_id	String	**Definition** Kafka ID for transferring logs to DMS. This parameter is returned when logs are transferred to DMS. Before creating a DMS transfer task, register your Kafka instance with Kafka ID and Kafka topic first. For details, see **Registering a DMS Kafka Instance**. **Range** N/A

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Parameter	Type	Description
kafka_topic	String	**Definition** Kafka topic for transferring logs to DMS. This parameter is returned when logs are transferred to DMS. Before creating a DMS transfer task, register your Kafka instance with Kafka ID and Kafka topic first. For details, see **Registering a DMS Kafka Instance**. **Range** N/A
obs_transfer_path	String	**Definition** OBS bucket path, which is the log transfer destination. **Range** N/A
obs_encrypted_enable	Boolean	**Definition** Whether OBS bucket encryption is enabled. **Range** • **true** • false
tags	Array of strings	**Definition** Whether filtering by tag fields is enabled. **Range** N/A

Status code: 400

Table 6-330 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-331 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Delete a log transfer task based on its ID.

```
DELETE https://{endpoint}/v2/{project_id}/transfers

/v2/{project_id}/transfers?log_transfer_id=cfc43c45-9edc-4a03-8578-0eb00cxxxxxx
```

Example Responses

Status code: 200

The log transfer task is deleted.

```
{
  "log_group_id" : "9a7e2183-2d6d-4732-9a9b-e897fd4e49e0",
  "log_group_name" : "lts-group-kafka",
  "log_streams" : [ {
    "log_stream_id" : "839dac89-35af-4db2-ab4a-a7dda0d0d3f8",
    "log_stream_name" : "lts-topic-kafka"
  } ],
  "log_transfer_id" : "ddced522-233a-4181-a5fc-7b458c819afc",
  "log_transfer_info" : {
    "log_create_time" : 1634802241847,
    "log_storage_format" : "JSON",
    "log_agency_transfer" : {
      "agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
      "agency_domain_name" : "paas_apm_z004xxxxx_xx",
```

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```
    "agency_name" : "test20210325",
    "agency_project_id" : "2a473356cca5487f8373be891bfxxxxx",
    "be_agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
    "be_agency_project_id" : "2a473356cca5487f8373be891bfxxxxx"
   },
   "log_transfer_detail" : {
    "obs_period" : 2,
    "obs_prefix_name" : "",
    "obs_period_unit" : "min",
    "obs_transfer_path" : "/0002/LogTanks/xxx/",
    "obs_bucket_name" : "0002",
    "obs_encrypted_enable" : false,
    "obs_dir_pre_fix_name" : "",
    "obs_time_zone" : "UTC+01:00",
    "obs_time_zone_id" : "Africa/Lagos",
    "dis_id" : "xxxxx",
    "dis_name" : "xxxxxx",
    "kafka_id" : "xxxxxx",
    "kafka_topic" : "xxxxx"
   },
   "log_transfer_mode" : "cycle",
   "log_transfer_status" : "ENABLE",
   "log_transfer_type" : "OBS"
  }
}
```


Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.


```
{
  "error_code" : "LTS.0405",
  "error_msg" : "The log transfer does not existed"
}
```


Status code: 500

The server has received the request but encountered an internal error.


```
{
  "error_code" : "LTS.0010",
  "error_msg" : "The system encountered an internal error"
}
```


Status Codes

Status Code	Description
200	The log transfer task is deleted.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

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6.6.3 Updating a Log Transfer Task

Function

This API is used to update an OBS, DIS, or DMS transfer task.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v2/{project_id}/transfers

Table 6-332 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Request Parameters

Table 6-333 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-334 Request body parameters

Parameter	Mandatory	Type	Description
log_transfer_id	Yes	String	Log transfer task ID. Minimum: **36** Maximum: **36**
log_group_id	No	String	Log group ID.
log_transfer_info	Yes	**update_log_transfer_info** object	Log transfer information.
log_streams	No	**LogStreams** object	Log stream information.

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Table 6-335 update_log_transfer_info

Parameter	Mandatory	Type	Description
log_storage_format	Yes	String	**Definition** Log transfer format. The value can be **RAW** or **JSON**. **RAW** indicates the raw log format, and **JSON** indicates the JSON format. **Constraints** N/A **Range** **JSON** or **RAW**
log_transfer_status	Yes	String	**Definition** Log transfer status. **ENABLE** indicates that log transfer is enabled, **DISABLE** indicates that log transfer is disabled, and **EXCEPTION** indicates that log transfer is abnormal. **Constraints** N/A **Range** **ENABLE**, **DISABLE**, or **EXCEPTION**
log_transfer_detail	Yes	**log_transfer_detail** object	Log transfer details.

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Table 6-336 log_transfer_detail

Parameter	Mandatory	Type	Description
obs_period	Yes	Integer	**Definition** Length of the transfer interval for an OBS transfer task. This parameter is required when you create an OBS transfer task. The log transfer interval is specified by the combination of the values of **obs_period** and **obs_period_unit**, and must be set to one of the following: **2min**, **5min**, **30min**, **1hour**, **3hour**, **6hour**, or **12hour**. **Constraints** N/A **Range** 1,2,3,5,6,12,30
obs_period_unit	Yes	String	**Definition** Unit of the transfer interval for an OBS transfer task. This parameter is required when you create an OBS transfer task. The log transfer interval is specified by the combination of the values of **obs_period** and **obs_period_unit**, and must be set to one of the following: **2min**, **5min**, **30min**, **1hour**, **3hour**, **6hour**, or **12hour**. **Constraints** N/A **Range** **min** or **hour**
obs_bucket_name	Yes	String	**Definition** OBS bucket name. This parameter is required when you create an OBS transfer task. **Constraints** N/A

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Parameter	Mandatory	Type	Description
obs_encrypted_id	No	String	**Definition** KMS key ID for an OBS transfer task. This parameter is required if encryption is enabled for the target OBS bucket. **Constraints** N/A
obs_dir_prefix_name	No	String	**Definition** Custom transfer path of an OBS transfer task. This parameter is optional. **Constraints** N/A
obs_prefix_name	No	String	**Definition** Transfer file prefix of an OBS transfer task. This parameter is optional. **Constraints** N/A
obs_time_zone	No	String	**Definition** Time zone for an OBS transfer task. For details, see Time Zone List for OBS Transfer. If this parameter is specified, **obs_time_zone_id** must also be specified. **Constraints** N/A
obs_time_zone_id	No	String	**Definition** ID of the time zone for an OBS transfer task. For details, see Time Zone List for OBS Transfer. If this parameter is specified, **obs_time_zone** must also be specified. **Constraints** N/A

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Parameter	Mandatory	Type	Description
dis_id	No	String	**Definition** DIS stream ID. This parameter is required when you create a DIS transfer task. **Constraints** N/A
dis_name	No	String	**Definition** DIS stream name. This parameter is required when you create a DIS transfer task. **Constraints** N/A
kafka_id	No	String	**Definition** Kafka ID of a DMS transfer task. This parameter is required when you create a DMS transfer task. Before creating a DMS transfer task, register your Kafka instance with Kafka ID and Kafka topic first. For details, see section "Registering a DMS Kafka Instance." **Constraints** N/A
kafka_topic	No	String	**Definition** Kafka topic of a DMS transfer task. This parameter is required when you create a DMS transfer task. Before creating a DMS transfer task, register your Kafka instance with Kafka ID and Kafka topic first. For details, see section "Registering a DMS Kafka Instance." **Constraints** N/A
obs_eps_id	No	String	**Definition** Enterprise project ID of an OBS transfer task. **Constraints** N/A

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Parameter	Mandatory	Type	Description
obs_encrypted_enable	No	Boolean	**Definition** Whether OBS bucket encryption is enabled. **Constraints** N/A
tags	No	Array of strings	**Definition** If tag delivery is enabled, this field must contain the following host information: **hostIP**, **hostId**, **hostName**, **pathFile**, and **collectTime**. The public fields are **logStreamName**, **regionName**, **logGroupName**, and **projectId**, which are optional. The field for enabling tag transfer is **streamTag**, which is optional. **Constraints** N/A
lts_tags	No	Array of strings	**Definition** Whether to transfer the tag field. This parameter is optional when the JSON format is selected for DMS transfer. **Constraints** N/A
stream_tags	No	Array of strings	**Definition** Whether to transfer the log stream tag field. This parameter is optional when the JSON format is selected for DMS transfer. **Constraints** N/A

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Parameter	Mandatory	Type	Description
struct_fields	No	Array of strings	**Definition** Whether to transfer the structured fields. This parameter is optional when the JSON format is selected for DMS transfer. **Constraints** N/A
invalid_field_value	No	String	**Definition** Whether to enable the invalid field fill function. This parameter is optional when the JSON format is selected for DMS transfer. **Constraints** N/A

Table 6-337 LogStreams

Parameter	Mandatory	Type	Description
log_stream_id	Yes	String	Log stream ID.
log_stream_name	No	String	Log stream name.

Response Parameters

Status code: 200

Table 6-338 Response body parameters

Parameter	Type	Description
log_group_id	String	**Definition** ID of the created log group. **Range** N/A
log_group_name	String	**Definition** Name of the created log group. **Range** N/A

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Parameter	Type	Description
log_streams	Array of **log_streams** objects	**Definition** Details about log streams in the log group.
log_transfer_id	String	**Definition** ID of the created log transfer task. **Range** N/A
log_transfer_info	**log_transfer_info_RespBody** object	**Definition** Log transfer information.

Table 6-339 log_streams

Parameter	Type	Description
log_stream_id	String	**Definition** Log stream ID. **Range** N/A
log_stream_name	String	**Definition** Log stream name. **Range** N/A

Table 6-340 log_transfer_info_RespBody

Parameter	Type	Description
log_agency_transfer	**log_agency_transfer** object	**Definition** Information about the transfer agency. If the log source of transfer is another account, logs generated by the delegator account is transferred. Ensure that the delegator has created an agency for log transfer delegation in IAM.

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Parameter	Type	Description
log_create_time	Integer	**Definition** Time when the log transfer task was created. **Range** **0** to **2147483647**
log_storage_format	String	**Definition** Log transfer format. The value can be **RAW** (raw logs) or **JSON**. The available format options depend on the selected transfer destination. When the transfer destination is OBS or DIS, **JSON** and **RAM** are supported. When the transfer destination is DMS, only **RAW** is supported. **Range** • **RAW** • **JSON**
log_transfer_detail	**TransferDetail** object	**Definition** Log transfer information.
log_transfer_mode	String	**Definition** Log transfer mode. The value can be **cycle** (periodical transfer) and **realTime** (real-time transfer). The available mode options depend on the selected transfer destination. If the transfer destination is OBS, the transfer mode can be **cycle**. If the transfer destination is DIS or DMS, the transfer mode can be **realTime**. **Range** • **cycle** • **realTime**
log_transfer_status	String	**Definition** Log transfer status. **Range** • **ENABLE**: Log transfer is enabled. • **DISABLE**: Log transfer is disabled. • **EXCEPTION**: Log transfer is abnormal.

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Parameter	Type	Description
log_transfer_type	String	**Definition** Log transfer type. **Range** • **OBS**: Logs are transferred to OBS. • **DIS**: Logs are transferred to DIS. • **DMS**: Logs are transferred to DMS.

Table 6-341 log_agency_transfer

Parameter	Type	Description
agency_domain_id	String	**Definition** Account ID of the delegator. **Range** N/A
agency_domain_name	String	**Definition** Account name of the delegator. **Range** N/A
agency_name	String	**Definition** Name of the agency created by the delegator. **Range** N/A
agency_project_id	String	**Definition** Project ID of the delegator. **Range** N/A
be_agency_domain_id	String	**Definition** Account ID of the delegated party (ID of the account that created the log transfer task). **Range** N/A

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Parameter	Type	Description
be_agency_project_id	String	**Definition** Project ID of the delegated party (ID of the project for which the transfer task is created). **Range** N/A

Table 6-342 TransferDetail

Parameter	Type	Description
obs_period	Integer	**Definition** Time for transferring logs to OBS. This parameter is returned when the transfer destination is OBS. **Range** **1**, **2**, **3**, **5**, **6**, **2**, **30**
obs_period_unit	String	**Definition** Time unit for transferring data to OBS. This parameter is returned when the transfer destination is OBS. **Range** • min • **hour**
obs_bucket_name	String	**Definition** Name of the OBS bucket to which logs are transferred. This parameter is returned when the transfer destination is OBS. **Range** N/A
obs_encrypted_id	String	**Definition** KMS key ID of the OBS bucket to which logs are transferred. This parameter is returned when logs are transferred to an encrypted OBS bucket. **Range** N/A

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Parameter	Type	Description
obs_dir_pre_fix_name	String	**Definition** Custom transfer path to which logs are transferred to OBS. This parameter is returned when the transfer destination is OBS. Logs will be transferred to this custom path to separate log files from different log streams. **Range** N/A
obs_prefix_name	String	**Definition** File name prefix of the log files transferred to an OBS bucket. This parameter is returned when the transfer destination is OBS. **Range** N/A
obs_time_zone	String	**Definition** Time zone for an OBS transfer task. For details, see **Time Zone List for OBS Transfer**. **Range** N/A
obs_time_zone_id	String	**Definition** Time zone ID for an OBS transfer task. For details, see **Time Zone List for OBS Transfer**. **Range** N/A
dis_id	String	**Definition** ID of the DIS transfer channel to which logs are transferred. This parameter is returned when logs are transferred to DIS. **Range** N/A

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Parameter	Type	Description
dis_name	String	**Definition** Name of the DIS transfer channel to which logs are transferred. This parameter is returned when logs are transferred to DIS. **Range** N/A
kafka_id	String	**Definition** Kafka ID for transferring logs to DMS. This parameter is returned when logs are transferred to DMS. Before creating a DMS transfer task, register your Kafka instance with Kafka ID and Kafka topic first. For details, see **Registering a DMS Kafka Instance**. **Range** N/A
kafka_topic	String	**Definition** Kafka topic for transferring logs to DMS. This parameter is returned when logs are transferred to DMS. Before creating a DMS transfer task, register your Kafka instance with Kafka ID and Kafka topic first. For details, see **Registering a DMS Kafka Instance**. **Range** N/A
obs_transfer_path	String	**Definition** OBS bucket path, which is the log transfer destination. **Range** N/A
obs_encrypted_enable	Boolean	**Definition** Whether OBS bucket encryption is enabled. **Range** • **true** • false

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Parameter	Type	Description
tags	Array of strings	**Definition** Whether filtering by tag fields is enabled. **Range** N/A

Status code: 400

Table 6-343 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-344 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

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Example Requests

- Updating an OBS transfer task

```
PUT https://{endpoint}/v2/{project_id}/transfers

{
  "log_transfer_id" : "9f74e101-b969-483c-a610-d3f3064xxxxx",
  "log_transfer_info" : {
    "log_storage_format" : "JSON",
    "log_transfer_status" : "DISABLE",
    "log_transfer_detail" : {
      "obs_period" : 3,
      "obs_period_unit" : "hour",
      "obs_bucket_name" : "0xxx",
      "obs_encrypted_id" : "1bd90032-1424-481f-8558-ba49854xxxxx",
      "obs_dir_pre_fix_name" : "/xx",
      "obs_prefix_name" : "xxxxx",
      "obs_time_zone" : "UTC+01:00",
      "obs_time_zone_id" : "Africa/Lagos"
    }
  }
}
```

- Updating a DIS transfer task

```
PUT https://{endpoint}/v2/{project_id}/transfers

{
  "log_transfer_id" : "9f74e101-b969-483c-a610-d3f3064xxxxx",
  "log_transfer_info" : {
    "log_storage_format" : "JSON",
    "log_transfer_status" : "DISABLE",
    "log_transfer_detail" : {
      "dis_id" : "xxxxx",
      "dis_name" : "xxxxxx"
    }
  }
}
```

- Updating a DMS transfer task

```
PUT https://{endpoint}/v2/{project_id}/transfers

{
  "log_transfer_id" : "9f74e101-b969-483c-a610-d3f3064xxxxx",
  "log_transfer_info" : {
    "log_storage_format" : "JSON",
    "log_transfer_status" : "DISABLE",
    "log_transfer_detail" : {
      "kafka_id" : "xxxxx",
      "kafka_topic" : "xxxxxx"
    }
  }
}
```

Example Responses

Status code: 200

The transfer task is updated.

- The following parameters are returned for an OBS transfer task:

```
{
  "log_group_id" : "9a7e2183-2d6d-4732-9a9b-e897fd4e49e0",
  "log_group_name" : "lts-group-kafka",
  "log_streams" : [ {
    "log_stream_id" : "839dac89-35af-4db2-ab4a-a7dda0d0d3f8",
    "log_stream_name" : "lts-topic-kafka"
  } ],
```

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```
 "log_transfer_id" : "ddced522-233a-4181-a5fc-7b458c819afc",
 "log_transfer_info" : {
   "log_create_time" : 1634802241847,
   "log_storage_format" : "JSON",
   "log_agency_transfer" : {
     "agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
     "agency_domain_name" : "paas_apm_z004xxxxx_xx",
     "agency_name" : "test20210325",
     "agency_project_id" : "2a473356cca5487f8373be891bfxxxxx",
     "be_agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
     "be_agency_project_id" : "2a473356cca5487f8373be891bfxxxxx"
   },
   "log_transfer_detail" : {
     "obs_period" : 2,
     "obs_prefix_name" : "",
     "obs_period_unit" : "min",
     "obs_transfer_path" : "/0002/LogTanks/cn-north-7/",
     "obs_bucket_name" : "0002",
     "obs_encrypted_enable" : false,
     "obs_dir_pre_fix_name" : "",
     "obs_time_zone" : "UTC+01:00",
     "obs_time_zone_id" : "Africa/Lagos",
     "tags" : [ ]
   },
   "log_transfer_mode" : "cycle",
   "log_transfer_status" : "ENABLE",
   "log_transfer_type" : "OBS"
 }
}
```

- The following parameters are returned for a DIS transfer task:

```
{
 "log_group_id" : "9a7e2183-2d6d-4732-9a9b-e897fd4e49e0",
 "log_group_name" : "lts-group-kafka",
 "log_streams" : [ {
   "log_stream_id" : "839dac89-35af-4db2-ab4a-a7dda0d0d3f8",
   "log_stream_name" : "lts-topic-kafka"
 } ],
 "log_transfer_id" : "ddced522-233a-4181-a5fc-7b458c819afc",
 "log_transfer_info" : {
   "log_create_time" : 1634802241847,
   "log_storage_format" : "JSON",
   "log_agency_transfer" : {
     "agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
     "agency_domain_name" : "paas_apm_z004xxxxx_xx",
     "agency_name" : "test20210325",
     "agency_project_id" : "2a473356cca5487f8373be891bfxxxxx",
     "be_agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
     "be_agency_project_id" : "2a473356cca5487f8373be891bfxxxxx"
   },
   "log_transfer_detail" : {
     "dis_id" : "xxxxx",
     "dis_name" : "xxxxxx",
     "tags" : [ ]
   },
   "log_transfer_mode" : "cycle",
   "log_transfer_status" : "ENABLE",
   "log_transfer_type" : "OBS"
 }
}
```

- The following parameters are returned for a DMS transfer task:

```
{
 "log_group_id" : "9a7e2183-2d6d-4732-9a9b-e897fd4e49e0",
 "log_group_name" : "lts-group-kafka",
 "log_streams" : [ {
   "log_stream_id" : "839dac89-35af-4db2-ab4a-a7dda0d0d3f8",
   "log_stream_name" : "lts-topic-kafka"
 } ],
 "log_transfer_id" : "ddced522-233a-4181-a5fc-7b458c819afc",
```

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```
 "log_transfer_info" : {
   "log_create_time" : 1634802241847,
   "log_storage_format" : "JSON",
   "log_agency_transfer" : {
     "agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
     "agency_domain_name" : "paas_apm_z004xxxxx_xx",
     "agency_name" : "test20210325",
     "agency_project_id" : "2a473356cca5487f8373be891bfxxxxx",
     "be_agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
     "be_agency_project_id" : "2a473356cca5487f8373be891bfxxxxx"
   },
   "log_transfer_detail" : {
     "kafka_id" : "xxxxxx",
     "kafka_topic" : "xxxxx",
     "tags" : [ ]
   },
   "log_transfer_mode" : "cycle",
   "log_transfer_status" : "ENABLE",
   "log_transfer_type" : "OBS"
 }
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.0009",
  "error_msg" : "The Field transfer id is invalid or missing."
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0010",
  "error_msg" : "The system encountered an internal error"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

- Updating an OBS transfer task

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class UpdateTransferSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
```

```
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateTransferRequest request = new UpdateTransferRequest();
        UpdateTransferRequestBody body = new UpdateTransferRequestBody();
        TransferDetail logTransferDetailLogTransferInfo = new TransferDetail();
        logTransferDetailLogTransferInfo.withObsPeriod(TransferDetail.ObsPeriodEnum.NUMBER_3)
            .withObsEncryptedId("1bd90032-1424-481f-8558-ba49854xxxxx")
            .withObsPrefixName("xxxxx")
            .withObsPeriodUnit("hour")
            .withObsBucketName("0xxx")
            .withObsDirPreFixName("/xx")
            .withObsTimeZone("UTC+01:00")
            .withObsTimeZoneId("Africa/Lagos");
        UpdateTransferRequestBodyLogTransferInfo logTransferInfobody = new
UpdateTransferRequestBodyLogTransferInfo();

logTransferInfobody.withLogStorageFormat(UpdateTransferRequestBodyLogTransferInfo.LogStorageFor
matEnum.fromValue("JSON"))
            .withLogTransferStatus(UpdateTransferRequestBodyLogTransferInfo.LogTransferStatusEnum.fro
mValue("DISABLE"))
            .withLogTransferDetail(logTransferDetailLogTransferInfo);
        body.withLogTransferInfo(logTransferInfobody);
        body.withLogTransferId("9f74e101-b969-483c-a610-d3f3064xxxxx");
        request.withBody(body);
        try {
            UpdateTransferResponse response = client.updateTransfer(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- Updating a DIS transfer task

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class UpdateTransferSolution {

    public static void main(String[] args) {
```

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```
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateTransferRequest request = new UpdateTransferRequest();
        UpdateTransferRequestBody body = new UpdateTransferRequestBody();
        TransferDetail logTransferDetailLogTransferInfo = new TransferDetail();
        logTransferDetailLogTransferInfo.withDisId("xxxxx")
            .withDisName("xxxxxx");
        UpdateTransferRequestBodyLogTransferInfo logTransferInfobody = new UpdateTransferRequestBodyLogTransferInfo();

logTransferInfobody.withLogStorageFormat(UpdateTransferRequestBodyLogTransferInfo.LogStorageFormatEnum.fromValue("JSON"))
            .withLogTransferStatus(UpdateTransferRequestBodyLogTransferInfo.LogTransferStatusEnum.fromValue("DISABLE"))
            .withLogTransferDetail(logTransferDetailLogTransferInfo);
        body.withLogTransferInfo(logTransferInfobody);
        body.withLogTransferId("9f74e101-b969-483c-a610-d3f3064xxxxx");
        request.withBody(body);
        try {
            UpdateTransferResponse response = client.updateTransfer(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- Updating a DMS transfer task

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class UpdateTransferSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
```

```
environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateTransferRequest request = new UpdateTransferRequest();
        UpdateTransferRequestBody body = new UpdateTransferRequestBody();
        TransferDetail logTransferDetailLogTransferInfo = new TransferDetail();
        logTransferDetailLogTransferInfo.withKafkaId("xxxxx")
            .withKafkaTopic("xxxxxx");
        UpdateTransferRequestBodyLogTransferInfo logTransferInfobody = new
UpdateTransferRequestBodyLogTransferInfo();

logTransferInfobody.withLogStorageFormat(UpdateTransferRequestBodyLogTransferInfo.LogStorageFor
matEnum.fromValue("JSON"))
            .withLogTransferStatus(UpdateTransferRequestBodyLogTransferInfo.LogTransferStatusEnum.fro
mValue("DISABLE"))
            .withLogTransferDetail(logTransferDetailLogTransferInfo);
        body.withLogTransferInfo(logTransferInfobody);
        body.withLogTransferId("9f74e101-b969-483c-a610-d3f3064xxxxx");
        request.withBody(body);
        try {
            UpdateTransferResponse response = client.updateTransfer(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

- Updating an OBS transfer task

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
    ak = os.environ["CLOUD_SDK_AK"]
```

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```
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateTransferRequest()
        logTransferDetailLogTransferInfo = TransferDetail(
            obs_period=3,
            obs_encrypted_id="1bd90032-1424-481f-8558-ba49854xxxxx",
            obs_prefix_name="xxxxx",
            obs_period_unit="hour",
            obs_bucket_name="0xxx",
            obs_dir_pre_fix_name="/xx",
            obs_time_zone="UTC+01:00",
            obs_time_zone_id="Africa/Lagos"
        )
        logTransferInfobody = UpdateTransferRequestBodyLogTransferInfo(
            log_storage_format="JSON",
            log_transfer_status="DISABLE",
            log_transfer_detail=logTransferDetailLogTransferInfo
        )
        request.body = UpdateTransferRequestBody(
            log_transfer_info=logTransferInfobody,
            log_transfer_id="9f74e101-b969-483c-a610-d3f3064xxxxx"
        )
        response = client.update_transfer(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- Updating a DIS transfer task

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateTransferRequest()
        logTransferDetailLogTransferInfo = TransferDetail(
            dis_id="xxxxx",
```

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```
            dis_name="xxxxxx"
        )
        logTransferInfobody = UpdateTransferRequestBodyLogTransferInfo(
            log_storage_format="JSON",
            log_transfer_status="DISABLE",
            log_transfer_detail=logTransferDetailLogTransferInfo
        )
        request.body = UpdateTransferRequestBody(
            log_transfer_info=logTransferInfobody,
            log_transfer_id="9f74e101-b969-483c-a610-d3f3064xxxxx"
        )
        response = client.update_transfer(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- Updating a DMS transfer task

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateTransferRequest()
        logTransferDetailLogTransferInfo = TransferDetail(
            kafka_id="xxxxx",
            kafka_topic="xxxxxx"
        )
        logTransferInfobody = UpdateTransferRequestBodyLogTransferInfo(
            log_storage_format="JSON",
            log_transfer_status="DISABLE",
            log_transfer_detail=logTransferDetailLogTransferInfo
        )
        request.body = UpdateTransferRequestBody(
            log_transfer_info=logTransferInfobody,
            log_transfer_id="9f74e101-b969-483c-a610-d3f3064xxxxx"
        )
        response = client.update_transfer(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

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Go

- Updating an OBS transfer task

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateTransferRequest{}
    obsEncryptedIdLogTransferDetail:= "1bd90032-1424-481f-8558-ba49854xxxxx"
    obsPrefixNameLogTransferDetail:= "xxxxx"
    obsDirPreFixNameLogTransferDetail:= "/xx"
    obsTimeZoneLogTransferDetail:= "UTC+01:00"
    obsTimeZoneIdLogTransferDetail:= "Africa/Lagos"
    logTransferDetailLogTransferInfo := &model.TransferDetail{
        ObsPeriod: model.GetTransferDetailObsPeriodEnum().E_3,
        ObsEncryptedId: &obsEncryptedIdLogTransferDetail,
        ObsPrefixName: &obsPrefixNameLogTransferDetail,
        ObsPeriodUnit: "hour",
        ObsBucketName: "0xxx",
        ObsDirPreFixName: &obsDirPreFixNameLogTransferDetail,
        ObsTimeZone: &obsTimeZoneLogTransferDetail,
        ObsTimeZoneId: &obsTimeZoneIdLogTransferDetail,
    }
    logTransferInfobody := &model.UpdateTransferRequestBodyLogTransferInfo{
        LogStorageFormat: model.GetUpdateTransferRequestBodyLogTransferInfoLogStorageFormatEnum().JSON,
        LogTransferStatus: model.GetUpdateTransferRequestBodyLogTransferInfoLogTransferStatusEnum().DISABLE,
        LogTransferDetail: logTransferDetailLogTransferInfo,
    }
    request.Body = &model.UpdateTransferRequestBody{
        LogTransferInfo: logTransferInfobody,
        LogTransferId: "9f74e101-b969-483c-a610-d3f3064xxxxx",
    }
    response, err := client.UpdateTransfer(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
```

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```
    }
}
```

- Updating a DIS transfer task

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateTransferRequest{}
    disIdLogTransferDetail:= "xxxxx"
    disNameLogTransferDetail:= "xxxxxx"
    logTransferDetailLogTransferInfo := &model.TransferDetail{
        DisId: &disIdLogTransferDetail,
        DisName: &disNameLogTransferDetail,
    }
    logTransferInfobody := &model.UpdateTransferRequestBodyLogTransferInfo{
        LogStorageFormat: model.GetUpdateTransferRequestBodyLogTransferInfoLogStorageFormatEnum().JSON,
        LogTransferStatus: model.GetUpdateTransferRequestBodyLogTransferInfoLogTransferStatusEnum().DISABLE,
        LogTransferDetail: logTransferDetailLogTransferInfo,
    }
    request.Body = &model.UpdateTransferRequestBody{
        LogTransferInfo: logTransferInfobody,
        LogTransferId: "9f74e101-b969-483c-a610-d3f3064xxxxx",
    }
    response, err := client.UpdateTransfer(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- Updating a DMS transfer task

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
```

```
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateTransferRequest{}
    kafkaIdLogTransferDetail:= "xxxxx"
    kafkaTopicLogTransferDetail:= "xxxxxx"
    logTransferDetailLogTransferInfo := &model.TransferDetail{
        KafkaId: &kafkaIdLogTransferDetail,
        KafkaTopic: &kafkaTopicLogTransferDetail,
    }
    logTransferInfobody := &model.UpdateTransferRequestBodyLogTransferInfo{
        LogStorageFormat: model.GetUpdateTransferRequestBodyLogTransferInfoLogStorageFormatEnum().JSON,
        LogTransferStatus: model.GetUpdateTransferRequestBodyLogTransferInfoLogTransferStatusEnum().DISABLE,
        LogTransferDetail: logTransferDetailLogTransferInfo,
    }
    request.Body = &model.UpdateTransferRequestBody{
        LogTransferInfo: logTransferInfobody,
        LogTransferId: "9f74e101-b969-483c-a610-d3f3064xxxxx",
    }
    response, err := client.UpdateTransfer(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The transfer task is updated.

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Status Code	Description
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.6.4 Querying a Log Transfer Task

Function

This API is used to query a log transfer task, such as an OBS, DIS, or DMS transfer task.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/transfers

Table 6-345 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-346 Query Parameters

Parameter	Mandatory	Type	Description
log_transfer_type	No	String	**Definition** Log transfer type. **Constraints** N/A **Range** • **OBS**: Logs are transferred to OBS. • **DIS**: Logs are transferred to DIS. • **DMS**: Logs are transferred to DMS. **Default Value** N/A
log_group_name	No	String	**Definition** Name of an existing log group. **Constraints** You can only enter or select an existing log group. **Range** N/A **Default Value** N/A
log_stream_name	No	String	**Definition** Name of an existing log stream. **Constraints** • You can only select a log stream that belongs to the selected log group. • You cannot apply a new transfer configuration to a log stream that already has one. **Range** N/A **Default Value** N/A

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Request Parameters

Table 6-347 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

Table 6-348 Response body parameters

Parameter	Type	Description
log_transfers	Array of **CreateTransferResponseBody** objects	**Definition** Details about the log transfer task.

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Table 6-349 CreateTransferResponseBody

Parameter	Type	Description
log_group_id	String	**Definition** ID of the created log group. **Range** N/A
log_group_name	String	**Definition** Name of the created log group. **Range** N/A
log_streams	Array of **log_streams** objects	**Definition** Details about log streams in the log group.
log_transfer_id	String	**Definition** ID of the created log transfer task. **Range** N/A
log_transfer_info	**log_transfer_info_RespBody** object	**Definition** Log transfer information.

Table 6-350 log_streams

Parameter	Type	Description
log_stream_id	String	**Definition** Log stream ID. **Range** N/A
log_stream_name	String	**Definition** Log stream name. **Range** N/A

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Table 6-351 log_transfer_info_RespBody

Parameter	Type	Description
log_agency_transfer	log_agency_transfer object	**Definition** Information about the transfer agency. If the log source of transfer is another account, logs generated by the delegator account is transferred. Ensure that the delegator has created an agency for log transfer delegation in IAM.
log_create_time	Integer	**Definition** Time when the log transfer task was created. **Range** **0** to **2147483647**
log_storage_format	String	**Definition** Log transfer format. The value can be **RAW** (raw logs) or **JSON**. The available format options depend on the selected transfer destination. When the transfer destination is OBS or DIS, **JSON** and **RAM** are supported. When the transfer destination is DMS, only **RAW** is supported. **Range** • **RAW** • **JSON**
log_transfer_detail	TransferDetail object	**Definition** Log transfer information.
log_transfer_mode	String	**Definition** Log transfer mode. The value can be **cycle** (periodical transfer) and **realTime** (real-time transfer). The available mode options depend on the selected transfer destination. If the transfer destination is OBS, the transfer mode can be **cycle**. If the transfer destination is DIS or DMS, the transfer mode can be **realTime**. **Range** • **cycle** • **realTime**

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Parameter	Type	Description
log_transfer_status	String	**Definition** Log transfer status. **Range** • **ENABLE**: Log transfer is enabled. • **DISABLE**: Log transfer is disabled. • **EXCEPTION**: Log transfer is abnormal.
log_transfer_type	String	**Definition** Log transfer type. **Range** • **OBS**: Logs are transferred to OBS. • **DIS**: Logs are transferred to DIS. • **DMS**: Logs are transferred to DMS.

Table 6-352 log_agency_transfer

Parameter	Type	Description
agency_domain_id	String	**Definition** Account ID of the delegator. **Range** N/A
agency_domain_name	String	**Definition** Account name of the delegator. **Range** N/A
agency_name	String	**Definition** Name of the agency created by the delegator. **Range** N/A
agency_project_id	String	**Definition** Project ID of the delegator. **Range** N/A

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Parameter	Type	Description
be_agency_domain_id	String	**Definition** Account ID of the delegated party (ID of the account that created the log transfer task). **Range** N/A
be_agency_project_id	String	**Definition** Project ID of the delegated party (ID of the project for which the transfer task is created). **Range** N/A

Table 6-353 TransferDetail

Parameter	Type	Description
obs_period	Integer	**Definition** Time for transferring logs to OBS. This parameter is returned when the transfer destination is OBS. **Range** **1**, **2**, **3**, **5**, **6**, **2**, **30**
obs_period_unit	String	**Definition** Time unit for transferring data to OBS. This parameter is returned when the transfer destination is OBS. **Range** • min • **hour**
obs_bucket_name	String	**Definition** Name of the OBS bucket to which logs are transferred. This parameter is returned when the transfer destination is OBS. **Range** N/A

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Parameter	Type	Description
obs_encrypted_id	String	**Definition** KMS key ID of the OBS bucket to which logs are transferred. This parameter is returned when logs are transferred to an encrypted OBS bucket. **Range** N/A
obs_dir_pre_fix_name	String	**Definition** Custom transfer path to which logs are transferred to OBS. This parameter is returned when the transfer destination is OBS. Logs will be transferred to this custom path to separate log files from different log streams. **Range** N/A
obs_prefix_name	String	**Definition** File name prefix of the log files transferred to an OBS bucket. This parameter is returned when the transfer destination is OBS. **Range** N/A
obs_time_zone	String	**Definition** Time zone for an OBS transfer task. For details, see **Time Zone List for OBS Transfer**. **Range** N/A
obs_time_zone_id	String	**Definition** Time zone ID for an OBS transfer task. For details, see **Time Zone List for OBS Transfer**. **Range** N/A

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Parameter	Type	Description
dis_id	String	**Definition** ID of the DIS transfer channel to which logs are transferred. This parameter is returned when logs are transferred to DIS. **Range** N/A
dis_name	String	**Definition** Name of the DIS transfer channel to which logs are transferred. This parameter is returned when logs are transferred to DIS. **Range** N/A
kafka_id	String	**Definition** Kafka ID for transferring logs to DMS. This parameter is returned when logs are transferred to DMS. Before creating a DMS transfer task, register your Kafka instance with Kafka ID and Kafka topic first. For details, see **Registering a DMS Kafka Instance**. **Range** N/A
kafka_topic	String	**Definition** Kafka topic for transferring logs to DMS. This parameter is returned when logs are transferred to DMS. Before creating a DMS transfer task, register your Kafka instance with Kafka ID and Kafka topic first. For details, see **Registering a DMS Kafka Instance**. **Range** N/A
obs_transfer_path	String	**Definition** OBS bucket path, which is the log transfer destination. **Range** N/A

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Parameter	Type	Description
obs_encrypted_enable	Boolean	**Definition** Whether OBS bucket encryption is enabled. **Range** • **true** • false
tags	Array of strings	**Definition** Whether filtering by tag fields is enabled. **Range** N/A

Status code: 400

Table 6-354 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-355 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

If no parameter is specified, all log transfer tasks are returned. If log_transfer_type, log_group_name, and log_stream_name are specified, the corresponding log transfer task is returned.

```
GET https://{endpoint}/v2/{project_id}/transfers

/v2/{project_id}/transfers /v2/{project_id}/transfers?log_group_name=lts-group-txxx /v2/{project_id}/transfers?log_transfer_type=OBS /v2/{project_id}/transfers?log_stream_name=lts-topic-testRexxx /v2/{project_id}/transfers?log_group_name=lts-group-txxx&log_transfer_type=OBS /v2/{project_id}/transfers?log_group_name=lts-group-txxx&log_stream_name=lts-topic-testRxxx /v2/{project_id}/transfers?log_transfer_type=OBS&log_stream_name=lts-topic-testRxxx /v2/{project_id}/transfers?log_group_name=lts-group-txxx&log_transfer_type=OBS&log_stream_name=lts-topic-testRexxx
```

Example Responses

Status code: 200

The query is successful.

- The following parameters are returned for an OBS transfer task:

```
{
  "log_transfers" : [ {
    "log_group_id" : "9a7e2183-2d6d-4732-9a9b-e897fd4e49e0",
    "log_group_name" : "lts-group-kafka",
    "log_streams" : [ {
      "log_stream_id" : "839dac89-35af-4db2-ab4a-a7dda0d0d3f8",
      "log_stream_name" : "lts-topic-kafka"
    } ],
    "log_transfer_id" : "ddced522-233a-4181-a5fc-7b458c819afc",
    "log_transfer_info" : {
      "log_create_time" : 1634802241847,
      "log_storage_format" : "JSON",
      "log_agency_transfer" : {
        "agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
        "agency_domain_name" : "paas_apm_z004xxxxx_xx",
        "agency_name" : "test20210325",
        "agency_project_id" : "2a473356cca5487f8373be891bfxxxxx",
        "be_agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
        "be_agency_project_id" : "2a473356cca5487f8373be891bfxxxxx"
      },
      "log_transfer_detail" : {
        "obs_period" : 2,
        "obs_prefix_name" : "",
        "obs_period_unit" : "min",
        "obs_transfer_path" : "/0002/LogTanks/xxx/",
        "obs_bucket_name" : "0002",
        "obs_encrypted_enable" : false,
        "obs_dir_pre_fix_name" : "",
        "obs_time_zone" : "UTC+01:00",
        "obs_time_zone_id" : "Africa/Lagos"
      },
```

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```
    "log_transfer_mode" : "cycle",
    "log_transfer_status" : "ENABLE",
    "log_transfer_type" : "OBS"
   }
  } ]
}
```

- The following parameters are returned for a DIS transfer task:

```
{
  "log_transfers" : [ {
    "log_group_id" : "9a7e2183-2d6d-4732-9a9b-e897fd4e49e0",
    "log_group_name" : "lts-group-kafka",
    "log_streams" : [ {
      "log_stream_id" : "839dac89-35af-4db2-ab4a-a7dda0d0d3f8",
      "log_stream_name" : "lts-topic-kafka"
    } ],
    "log_transfer_id" : "ddced522-233a-4181-a5fc-7b458c819afc",
    "log_transfer_info" : {
      "log_create_time" : 1634802241847,
      "log_storage_format" : "JSON",
      "log_agency_transfer" : {
        "agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
        "agency_domain_name" : "paas_apm_z004xxxxx_xx",
        "agency_name" : "test20210325",
        "agency_project_id" : "2a473356cca5487f8373be891bfxxxxx",
        "be_agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
        "be_agency_project_id" : "2a473356cca5487f8373be891bfxxxxx"
      },
      "log_transfer_detail" : {
        "dis_id" : "xxxxx",
        "dis_name" : "xxxxxx"
      },
      "log_transfer_mode" : "cycle",
      "log_transfer_status" : "ENABLE",
      "log_transfer_type" : "OBS"
    }
  } ]
}
```

- The following parameters are returned for a DMS transfer task:

```
{
  "log_transfers" : [ {
    "log_group_id" : "9a7e2183-2d6d-4732-9a9b-e897fd4e49e0",
    "log_group_name" : "lts-group-kafka",
    "log_streams" : [ {
      "log_stream_id" : "839dac89-35af-4db2-ab4a-a7dda0d0d3f8",
      "log_stream_name" : "lts-topic-kafka"
    } ],
    "log_transfer_id" : "ddced522-233a-4181-a5fc-7b458c819afc",
    "log_transfer_info" : {
      "log_create_time" : 1634802241847,
      "log_storage_format" : "JSON",
      "log_agency_transfer" : {
        "agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
        "agency_domain_name" : "paas_apm_z004xxxxx_xx",
        "agency_name" : "test20210325",
        "agency_project_id" : "2a473356cca5487f8373be891bfxxxxx",
        "be_agency_domain_id" : "1d26cc8c86a840e28a4f8d0d078xxxxx",
        "be_agency_project_id" : "2a473356cca5487f8373be891bfxxxxx"
      },
      "log_transfer_detail" : {
        "kafka_id" : "xxxxxx",
        "kafka_topic" : "xxxxx"
      },
      "log_transfer_mode" : "cycle",
      "log_transfer_status" : "ENABLE",
      "log_transfer_type" : "OBS"
    }
  } ]
}
```

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Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.0001",
  "error_msg" : "Invalid log transfer type"
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0010",
  "error_msg" : "The system encountered an internal error"
}
```

Status Codes

Status Code	Description
200	The query is successful.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.6.5 Registering a DMS Kafka Instance

Function

This API is used to register a DMS Kafka instance.

Before registering a DMS Kafka instance, configure an inbound rule to allow access from 198.19.128.0/17 over port 9011.

If a network access control list (ACL) has been configured for the subnet of this instance, configure inbound rules for the network ACL to allow access from 198.19.128.0/17 over port 9011.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/lts/dms/kafka-instance

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Table 6-356 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-357 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-358 Request body parameters

Parameter	Mandatory	Type	Description
instance_id	Yes	String	kafka ID Minimum: **1** Maximum: **36**
kafka_name	Yes	String	Kafka name. Minimum: **1** Maximum: **256**
connect_info	Yes	**connect_info** object	Kafka connection information. This parameter is required if you have configured **SASL_SSL** when purchasing the Kafka instance.

Table 6-359 connect_info

Parameter	Mandatory	Type	Description
user_name	No	String	**Definition** Account. **Constraints** N/A
pwd	No	String	**Definition** Password. **Constraints** N/A

Response Parameters

Status code: 201

Table 6-360 Response body parameters

Parameter	Type	Description
instance_id	String	kafka ID

Status code: 400

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Table 6-361 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-362 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Registering a DMS Kafka instance

```
POST https://{endpoint}/v2/{project_id}/lts/dms/kafka-instance

{
  "instance_id" : "3f4a92ff-7f65-489f-a36a-fadbaaxxxxx6",
  "kafka_name" : "kafka-wxxxxxt",
  "connect_info" : {
    "user_name" : "111",
    "pwd" : "2222"
  }
}
```

Example Responses

Status code: 201

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The registration is successful.

```
{
  "instance_id" : "3f4a92ff-7f65-489f-a36a-fadbaaxxxxx6"
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.1719",
  "error_msg" : "kafka user or password wrong"
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0010",
  "error_msg" : "The system encountered an internal error"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Registering a DMS Kafka instance

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class RegisterDmsKafkaInstanceSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        RegisterDmsKafkaInstanceRequest request = new RegisterDmsKafkaInstanceRequest();
```

```
        RegisterDmsKafkaInstanceRequestBody body = new RegisterDmsKafkaInstanceRequestBody();
        RegisterDmsKafkaInstanceRequestBodyConnectInfo connectInfobody = new
RegisterDmsKafkaInstanceRequestBodyConnectInfo();
        connectInfobody.withUserName("111")
            .withPwd("2222");
        body.withConnectInfo(connectInfobody);
        body.withKafkaName("kafka-wxxxxxt");
        body.withInstanceId("3f4a92ff-7f65-489f-a36a-fadbaaxxxxx6");
        request.withBody(body);
        try {
            RegisterDmsKafkaInstanceResponse response = client.registerDmsKafkaInstance(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Registering a DMS Kafka instance

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = RegisterDmsKafkaInstanceRequest()
        connectInfobody = RegisterDmsKafkaInstanceRequestBodyConnectInfo(
            user_name="111",
            pwd="2222"
        )
        request.body = RegisterDmsKafkaInstanceRequestBody(
            connect_info=connectInfobody,
            kafka_name="kafka-wxxxxxt",
            instance_id="3f4a92ff-7f65-489f-a36a-fadbaaxxxxx6"
        )
        response = client.register_dms_kafka_instance(request)
        print(response)
    except exceptions.ClientRequestException as e:
```

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```
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Registering a DMS Kafka instance

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.RegisterDmsKafkaInstanceRequest{}
    userNameConnectInfo:= "111"
    pwdConnectInfo:= "2222"
    connectInfobody := &model.RegisterDmsKafkaInstanceRequestBodyConnectInfo{
        UserName: &userNameConnectInfo,
        Pwd: &pwdConnectInfo,
    }
    request.Body = &model.RegisterDmsKafkaInstanceRequestBody{
        ConnectInfo: connectInfobody,
        KafkaName: "kafka-wxxxxxt",
        InstanceId: "3f4a92ff-7f65-489f-a36a-fadbaaxxxxx6",
    }
    response, err := client.RegisterDmsKafkaInstance(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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Status Codes

Status Code	Description
201	The registration is successful.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.7 Log Collection Beyond Free Quota

6.7.1 Disabling Log Collection Beyond Free Quota

Function

This API is used to configure log collection to stop when the free quota runs out.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/collection/disable

Table 6-363 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**

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Request Parameters

Table 6-364 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

The request is successful.

Status code: 403

Table 6-365 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-366 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Disabling log collection beyond free quota

```
POST https://{endpoint}/v2/{project_id}/collection/disable

/v2/{project_id}/collection/disable
```

Example Responses

Status code: 403

Forbidden.The request has been rejected.The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.

```
{
  "error_code" : "LTS.0001",
  "error_msg" : "Invalid projectId"
}
```

Status code: 500

Failed to change the setting of log collection beyond the free quota.

```
{
  "error_code" : "LTS.0210",
```

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```
  "error_msg" : "Update continue Collection Status error."
}
```

Status Codes

Status Code	Description
200	The request is successful.
403	Forbidden.The request has been rejected.The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.
500	Failed to change the setting of log collection beyond the free quota.

Error Codes

See **Error Codes**.

6.7.2 Enabling Log Collection Beyond Free Quota

Function

This API is used to configure log collection to continue when the free quota runs out.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/collection/enable

Table 6-367 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**

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Request Parameters

Table 6-368 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

The request is successful.

Status code: 403

Table 6-369 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-370 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Enabling log collection beyond free quota

```
POST https://{endpoint}/v2/{project_id}/collection/enable

/v2/{project_id}/collection/enable
```

Example Responses

Status code: 403

Forbidden. The request has been rejected. The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.

```
{
  "error_code" : "LTS.0001",
  "error_msg" : "Invalid projectId"
}
```

Status code: 500

Failed to change the setting of log collection beyond the free quota.

```
{
  "error_code" : "LTS.0210",
```

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```
  "error_msg" : "Update continue Collection Status error."
}
```

Status Codes

Status Code	Description
200	The request is successful.
403	Forbidden. The request has been rejected. The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.
500	Failed to change the setting of log collection beyond the free quota.
503	ServiceUnavailable. The requested service is unavailable.

Error Codes

See **Error Codes**.

6.8 Cloud Log Structuring

6.8.1 Creating Structuring Configurations (Recommended)

Function

This API is used to create structuring configurations using a structuring template, which facilitates parameter extraction and simplifies the parameter structure.

A user can call this API only once per second.

Calling Method

For details, see **Calling APIs**.

URI

POST /v3/{project_id}/lts/struct/template

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Table 6-371 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-372 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-373 Request body parameters

Parameter	Mandatory	Type	Description
log_group_id	Yes	String	**Definition** Log group ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A
log_stream_id	Yes	String	**Definition** Log stream ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A
template_id	Yes	String	**Definition** Structuring template ID. • When a system template is used, this parameter can be left empty. • When a custom template is used, this parameter is mandatory. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
template_name	Yes	String	**Definition** Name of a custom structuring template. **Constraints** • Use only letters, digits, hyphens (-), underscores (_), and periods (.). Do not start with a period or underscore or end with a period. • A maximum of 64 characters are allowed. **Range** N/A **Default Value** N/A
template_type	Yes	String	**Definition** Custom structuring template type. There are two types: system and custom. **Constraints** N/A **Range** • **built_in** • **custom** **Default Value** N/A

Response Parameters

Status code: 201

The request is successful.

Status code: 400

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Table 6-374 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-375 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

- Create an ELB system template.

```
POST https://{endpoint}/v3/{project_id}/lts/struct/template

{
  "log_group_id" : "17f23e52-a23d-46e0-8bc5-xxxxxxxxxxxx",
  "log_stream_id" : "b4d56d47-b4c4-453e-9047-xxxxxxxxxxxx",
  "template_type" : "built_in",
  "template_name" : "ELB",
  "template_id" : ""
}
```

- Creating a VPC System Template

```
POST https://{endpoint}/v3/{project_id}/lts/struct/template

{
  "log_group_id" : "17f23e52-a23d-46e0-8bc5-xxxxxxxxxxxx",
  "log_stream_id" : "b4d56d47-b4c4-453e-9047-xxxxxxxxxxxx",
```

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```
  "template_type" : "built_in",
  "template_name" : "VPC",
  "template_id" : ""
}
```

Example Responses

Status code: 201

The request is successful.

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.2014",
  "error_msg" : "template_id is invalid!"
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.2014",
  "error_msg" : "Failed to create struct config."
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

- Create an ELB system template.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class CreateStructConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
```

```
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
            .withCredential(auth)
            .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
            .build();
        CreateStructConfigRequest request = new CreateStructConfigRequest();
        StructConfig body = new StructConfig();
        body.withTemplateType(StructConfig.TemplateTypeEnum.fromValue("built_in"));
        body.withTemplateName("ELB");
        body.withTemplateId("");
        body.withLogStreamId("b4d56d47-b4c4-453e-9047-xxxxxxxxxxxx");
        body.withLogGroupId("17f23e52-a23d-46e0-8bc5-xxxxxxxxxxxx");
        request.withBody(body);
        try {
            CreateStructConfigResponse response = client.createStructConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- Creating a VPC System Template

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class CreateStructConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
            .withCredential(auth)
            .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
            .build();
        CreateStructConfigRequest request = new CreateStructConfigRequest();
        StructConfig body = new StructConfig();
```

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```
        body.withTemplateType(StructConfig.TemplateTypeEnum.fromValue("built_in"));
        body.withTemplateName("VPC");
        body.withTemplateId("");
        body.withLogStreamId("b4d56d47-b4c4-453e-9047-xxxxxxxxxxxx");
        body.withLogGroupId("17f23e52-a23d-46e0-8bc5-xxxxxxxxxxxx");
        request.withBody(body);
        try {
            CreateStructConfigResponse response = client.createStructConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

- Create an ELB system template.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateStructConfigRequest()
        request.body = StructConfig(
            template_type="built_in",
            template_name="ELB",
            template_id="",
            log_stream_id="b4d56d47-b4c4-453e-9047-xxxxxxxxxxxx",
            log_group_id="17f23e52-a23d-46e0-8bc5-xxxxxxxxxxxx"
        )
        response = client.create_struct_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

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- Creating a VPC System Template

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateStructConfigRequest()
        request.body = StructConfig(
            template_type="built_in",
            template_name="VPC",
            template_id="",
            log_stream_id="b4d56d47-b4c4-453e-9047-xxxxxxxxxxxx",
            log_group_id="17f23e52-a23d-46e0-8bc5-xxxxxxxxxxxx"
        )
        response = client.create_struct_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

- Create an ELB system template.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"
```

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```
    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateStructConfigRequest{}
    request.Body = &model.StructConfig{
        TemplateType: model.GetStructConfigTemplateTypeEnum().BUILT_IN,
        TemplateName: "ELB",
        TemplateId: "",
        LogStreamId: "b4d56d47-b4c4-453e-9047-xxxxxxxxxxxx",
        LogGroupId: "17f23e52-a23d-46e0-8bc5-xxxxxxxxxxxx",
    }
    response, err := client.CreateStructConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- Creating a VPC System Template

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateStructConfigRequest{}
    request.Body = &model.StructConfig{
        TemplateType: model.GetStructConfigTemplateTypeEnum().BUILT_IN,
        TemplateName: "VPC",
        TemplateId: "",
        LogStreamId: "b4d56d47-b4c4-453e-9047-xxxxxxxxxxxx",
        LogGroupId: "17f23e52-a23d-46e0-8bc5-xxxxxxxxxxxx",
    }
```

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```
    response, err := client.CreateStructConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
201	The request is successful.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.8.2 Modifying Structuring Configurations (Recommended)

Function

This API is used to modify structuring configurations using a structuring template.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v3/{project_id}/lts/struct/template

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Table 6-376 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**

Request Parameters

Table 6-377 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-378 Request body parameters

Parameter	Mandatory	Type	Description
log_group_id	Yes	String	**Definition** Log group ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A
log_stream_id	Yes	String	**Definition** Log stream ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A
template_id	Yes	String	**Definition** Structuring template ID. • When a system template is used, this parameter can be left empty. • When a custom template is used, this parameter is mandatory. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
template_name	Yes	String	**Definition** Name of a custom structuring template. **Constraints** • Use only letters, digits, hyphens (-), underscores (_), and periods (.). Do not start with a period or underscore or end with a period. • A maximum of 64 characters are allowed. **Range** N/A **Default Value** N/A
template_type	Yes	String	**Definition** Custom structuring template type. There are two types: system and custom. **Constraints** N/A **Range** • **built_in** • **custom** **Default Value** N/A

Response Parameters

Status code: 201

Table 6-379 Response body parameters

Parameter	Type	Description
-	String	The structuring rule is modified successfully.

Status code: 400

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Table 6-380 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-381 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

- Modifying an ELB System Template

```
PUT https://{endpoint}/v3/{project_id}/lts/struct/template

{
  "log_group_id" : "17f23e52-a23d-46e0-8bc5-xxxxxxxxxxxx",
  "log_stream_id" : "b4d56d47-b4c4-453e-9047-xxxxxxxxxxxx",
  "template_type" : "built_in",
  "template_name" : "ELB",
  "template_id" : ""
}
```

- Modifying a VPC System Template

```
PUT https://{endpoint}/v3/{project_id}/lts/struct/template

{
  "log_group_id" : "17f23e52-a23d-46e0-8bc5-xxxxxxxxxxxx",
  "log_stream_id" : "b4d56d47-b4c4-453e-9047-xxxxxxxxxxxx",
```

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```
  "template_type" : "built_in",
  "template_name" : "VPC",
  "template_id" : ""
}
```

Example Responses

Status code: 201

The request is successful.

```
""
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.2014",
  "error_msg" : "Failed to create struct config."
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.2016",
  "error_msg" : "Failed to update struct config"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

- Modifying an ELB System Template

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class UpdateStructConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
```

```
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
            .withCredential(auth)
            .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateStructConfigRequest request = new UpdateStructConfigRequest();
        StructConfig body = new StructConfig();
        body.withTemplateType(StructConfig.TemplateTypeEnum.fromValue("built_in"));
        body.withTemplateName("ELB");
        body.withTemplateId("");
        body.withLogStreamId("b4d56d47-b4c4-453e-9047-xxxxxxxxxxxx");
        body.withLogGroupId("17f23e52-a23d-46e0-8bc5-xxxxxxxxxxxx");
        request.withBody(body);
        try {
            UpdateStructConfigResponse response = client.updateStructConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- Modifying a VPC System Template

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class UpdateStructConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
            .withProjectId(projectId)
            .withAk(ak)
            .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
            .withCredential(auth)
            .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateStructConfigRequest request = new UpdateStructConfigRequest();
        StructConfig body = new StructConfig();
```

```
        body.withTemplateType(StructConfig.TemplateTypeEnum.fromValue("built_in"));
        body.withTemplateName("VPC");
        body.withTemplateId("");
        body.withLogStreamId("b4d56d47-b4c4-453e-9047-xxxxxxxxxxxx");
        body.withLogGroupId("17f23e52-a23d-46e0-8bc5-xxxxxxxxxxxx");
        request.withBody(body);
        try {
            UpdateStructConfigResponse response = client.updateStructConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

- Modifying an ELB System Template

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateStructConfigRequest()
        request.body = StructConfig(
            template_type="built_in",
            template_name="ELB",
            template_id="",
            log_stream_id="b4d56d47-b4c4-453e-9047-xxxxxxxxxxxx",
            log_group_id="17f23e52-a23d-46e0-8bc5-xxxxxxxxxxxx"
        )
        response = client.update_struct_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- Modifying a VPC System Template

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateStructConfigRequest()
        request.body = StructConfig(
            template_type="built_in",
            template_name="VPC",
            template_id="",
            log_stream_id="b4d56d47-b4c4-453e-9047-xxxxxxxxxxxx",
            log_group_id="17f23e52-a23d-46e0-8bc5-xxxxxxxxxxxx"
        )
        response = client.update_struct_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

- Modifying an ELB System Template

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"
```

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```
    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateStructConfigRequest{}
    request.Body = &model.StructConfig{
        TemplateType: model.GetStructConfigTemplateTypeEnum().BUILT_IN,
        TemplateName: "ELB",
        TemplateId: "",
        LogStreamId: "b4d56d47-b4c4-453e-9047-xxxxxxxxxxxx",
        LogGroupId: "17f23e52-a23d-46e0-8bc5-xxxxxxxxxxxx",
    }
    response, err := client.UpdateStructConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- Modifying a VPC System Template

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateStructConfigRequest{}
    request.Body = &model.StructConfig{
        TemplateType: model.GetStructConfigTemplateTypeEnum().BUILT_IN,
        TemplateName: "VPC",
        TemplateId: "",
        LogStreamId: "b4d56d47-b4c4-453e-9047-xxxxxxxxxxxx",
        LogGroupId: "17f23e52-a23d-46e0-8bc5-xxxxxxxxxxxx",
    }
```

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```
    response, err := client.UpdateStructConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
201	The request is successful.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.8.3 Deleting a Structuring Rule

Function

This API is used to delete a structuring rule of a log stream.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/{project_id}/lts/struct/template

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Table 6-382 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-383 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-384 Request body parameters

Parameter	Mandatory	Type	Description
id	Yes	String	**Definition** ID of the structuring template to be deleted. If this parameter is left empty, all custom structuring templates in the project are returned. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

Table 6-385 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 400

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Table 6-386 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 401

Table 6-387 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 403

Table 6-388 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-389 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Delete the structuring rule of the current ID.

```
DELETE https://{endpoint}/v2/{project_id}/lts/struct/template

/v2/{project_id}/lts/struct/template
{
  "id": "2a473356cca5487f8373be891bffc1cf_8a75b77d-7d72-4d7e-8c50-a24562cf8b0b_fd5e1a7c-7412-475d-a013-8891d539574e"
}
```

Example Responses

Status code: 200

The structuring rule is deleted.

```
{
  "id" : "xxxxxx"
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "errorCode" : "LTS.0612",
```

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```
  "errorMessage" : "timee fieldType is error"
}
```

Status code: 401

Authentication failed. Check the token and try again.

```
{
  "error_code" : "LTS.0414",
  "error_msg" : "Invalid token"
}
```

Status code: 403

Request rejected. The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.

```
{
  "error_code" : "LTS.0001",
  "error_msg" : "Invalid projectId"
}
```

Status code: 500

InternalServerError.

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0010",
  "error_msg" : "Internal Server Error"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Delete the structuring rule of the current ID.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class DeleteStructTemplateSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";
```

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```
        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteStructTemplateRequest request = new DeleteStructTemplateRequest();
        try {
            DeleteStructTemplateResponse response = client.deleteStructTemplate(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Delete the structuring rule of the current ID.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteStructTemplateRequest()
        response = client.delete_struct_template(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

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Go

Delete the structuring rule of the current ID.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteStructTemplateRequest{}
    response, err := client.DeleteStructTemplate(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The structuring rule is deleted.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
401	Authentication failed. Check the token and try again.

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Status Code	Description
403	Request rejected. The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.
500	InternalServerError. The server has received the request but encountered an internal error.
503	The requested service is unavailable.

Error Codes

See **Error Codes**.

6.8.4 Querying a Structuring Rule

Function

This API is used to query the structuring rule of a specified log stream.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/lts/struct/template

Table 6-390 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-391 Query Parameters

Parameter	Mandatory	Type	Description
logGroupId	Yes	String	**Definition** Log group ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A
logStreamId	Yes	String	**Definition** Log stream ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-392 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints:** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

Table 6-393 Response body parameters

Parameter	Type	Description
demoFields	Array of **StructFieldInfoReturn** objects	**Definition** Fields generated after the sample log event is parsed based on the structuring configuration.
tagFields	Array of **tag_fields_info** objects	**Definition** Fixed fields generated based on the log reporting channel or static fields manually configured by the user.
demoLog	String	**Definition** Sample log event. **Range** N/A
demoLabel	String	**Definition** Complete JSON structure example of the sample log and system fields. **Range** N/A
id	String	**Definition** Structuring configuration ID. **Range** N/A

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Parameter	Type	Description
logGroupId	String	**Definition** Log group ID. **Range** N/A
rule	**TemplateRule** object	**Definition** Structuring method.
cluster_info	**ShowStructTemplateclusterInfo** object	**Definition** Kafka cluster information.
logStreamId	String	**Definition** Log stream ID. **Range** N/A
projectId	String	**Definition** Project ID. **Range** N/A
templateName	String	**Definition** Structuring template name. **Range** N/A
regex	String	**Definition** Regular expression. **Range** N/A
custom_time_info	**customTimeInfo** object	**Definition** Parameters related to the custom time in the structuring configuration. **Range** N/A
uploadOriginalLog	Boolean	**Definition** Whether to upload raw logs. **Range** • **true** • **false**

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Parameter	Type	Description
uploadParseFailedLog	Boolean	**Definition** Whether to upload the raw logs that fail to be parsed to the specified system fields. **Range** • **true** • **false**

Table 6-394 StructFieldInfoReturn

Parameter	Type	Description
fieldName	String	**Definition** Name of an extracted field. **Range** N/A
type	String	**Definition** Field data type. **Range** • **string** • **long** • **float**
content	String	**Definition** Sample content of the extracted field. **Range** N/A
isAnalysis	Boolean	**Definition** Whether quick analysis is enabled. If indexing is configured, the quick analysis setting specified on the **Index Settings** tab page is applied. **Range** • **true**: enables quick analysis. • **false**: disables quick analysis.
index	Integer	**Definition** Field sequence number in regular expression and delimiter methods. **Range** N/A

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Table 6-395 tag_fields_info

Parameter	Type	Description
fieldName	String	**Definition** Tag field name. **Range** N/A
type	String	**Definition** Tag field type. **Range** • **string** • **float** • **long**
content	String	**Definition** Sample content of the tag field. **Range** N/A
isAnalysis	Boolean	**Definition** Whether quick analysis is enabled. If indexing is configured, the quick analysis setting specified on the **Index Settings** tab page is applied. **Range** • **true**: enables quick analysis. • **false**: disables quick analysis.
index	Integer	**Definition** Field sequence number. **Range** N/A

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Table 6-396 TemplateRule

Parameter	Type	Description
type	String	**Definition** Structuring method of the structuring template. **Range** • **regex** • **json** • **split** • **nginx** • **built_in** • **custom_regex** • **regex_auto**
param	String	**Definition** Structuring parameter. It contains configuration parameters required for the corresponding structuring type. For example, if **type** is set to **split**, the **param** field returns a JSON string containing delimiters. If **type** is set to **regex**, the **param** field returns the configured regular expression. **Range** N/A

Table 6-397 ShowStructTemplateclusterInfo

Parameter	Type	Description
cluster_name	String	**Definition** Kafka cluster name. **Range** N/A
kafka_bootstrap_servers	String	**Definition** The Kafka cluster's server address. **Range** N/A

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Parameter	Type	Description
kafka_ssl_enable	Boolean	**Definition** Whether SSL encrypted authentication is enabled for Kafka. **Range** • **true**: SSL encryption authentication is enabled. • **false**: SSL encryption authentication is disabled.

Table 6-398 customTimeInfo

Parameter	Type	Description
enable	Boolean	**Definition** Whether to enable the custom time field. **Range** • **true** • **false**
key	String	**Definition** Field name selected from **demoField** as the log system time. **Range** N/A
value	String	**Definition** Sample field content selected from **demoField** as the log system time. **Range** N/A
time_format	String	**Definition** Time format parameter for parsing a field as the time type. **Range** N/A

Status code: 400

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Table 6-399 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 401

Table 6-400 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 403

Table 6-401 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-402 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

```
GET https://{endpoint}/v2/{project_id}/lts/struct/template

/v2/{project_id}/lts/struct/template?logGroupId={logGroupId} &logStreamId={logStreamId}
```

Example Responses

Status code: 200

The request is successful and details of the structuring rule are returned.

```
{
  "custom_time_info" : {
    "enable" : false,
    "key" : "",
    "value" : ""
  },
  "demoFields" : [ {
    "content" : "aaa",
    "fieldName" : "field1",
    "index" : 0,
    "isAnalysis" : true,
    "type" : "string"
  }, {
    "content" : "bbb",
    "fieldName" : "field2",
    "index" : 1,
    "isAnalysis" : true,
```

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```
    "type" : "string"
  }, {
    "content" : "ccc",
    "fieldName" : "field3",
    "index" : 2,
    "isAnalysis" : true,
    "type" : "string"
  }, {
    "content" : "ddd",
    "fieldName" : "field4",
    "index" : 3,
    "isAnalysis" : true,
    "type" : "string"
  } ],
  "demoLabel" : "{}",
  "demoLog" : "aaa bbb ccc ddd",
  "id" : "a0a1xxxxxx4491185d7cf26c3e86ada_86b5xxxx-11df-4361-b48e-b3861c3c761c_xxxx02c7-1dac-47d0-b3ef-39e2ed4e70da",
  "logGroupId" : "86b5xxxx-11df-4361-b48e-b3861c3c761c",
  "logStreamId" : "d9c4xxxx-1dac-47d0-b3ef-39e2ed4e70da",
  "projectId" : "a0a1xxxxxx4491185d7cf26c3e86ada",
  "rule" : {
    "param" : "{ \" keyObject \" :{ \" 0 \" : \" field1 \" , \" 1 \" : \" field2 \" , \" 2 \" : \" field3 \" , \" 3 \" : \" field4 \" }, \" tokenizer \" : \"    \" , \" split_type \" : \" char \" }",
    "type" : "split"
  },
  "tagFields" : [ ],
  "uploadOriginalLog" : true,
  "uploadParseFailedLog" : false
}
```


Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.


```
{
  "errorCode" : "SVCSTG.ALS.200201",
  "errorMessage" : "Query Param is error."
}
```


Status code: 401

Authentication failed. Check the token and try again.


```
{
  "error_code" : "LTS.0414",
  "error_msg" : "Invalid token"
}
```


Status code: 403

Request rejected. The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.


```
{
  "error_code" : "LTS.0001",
  "error_msg" : "Invalid projectId"
}
```


Status code: 500

The server has received the request but encountered an internal error.


```
{
  "error_code" : "LTS.0102",
  "error_msg" : "Query empty."
}
```


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Status Codes

Status Code	Description
200	The request is successful and details of the structuring rule are returned.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
401	Authentication failed. Check the token and try again.
403	Request rejected. The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.
500	The server has received the request but encountered an internal error.
503	The requested service is unavailable.

Error Codes

See **Error Codes**.

6.8.5 Querying the Brief List of Structuring Templates

Function

This API is used to obtain the brief list of structuring templates. The brief list includes key information, such as fields, configurations, and IDs.

Calling Method

For details, see **Calling APIs**.

URI

GET /v3/{project_id}/lts/struct/customtemplate/list

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Table 6-403 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-404 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints:** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Response Parameters

Status code: 200

Table 6-405 Response body parameters

Parameter	Type	Description
results	Array of **BriefStructTemplateModel** objects	**Definition** Brief information about the queried custom structuring template.

Table 6-406 BriefStructTemplateModel

Parameter	Type	Description
create_time	Long	**Definition** Time when the structuring template was created. **Range** N/A
id	String	**Definition** ID of a custom structuring template. **Range** N/A
template_name	String	**Definition** Name of a custom structuring template. **Range** N/A
template_type	String	**Definition** Structuring template type. **Range** • **regex** • **json** • **split** • **nginx** • **built_in** • **custom_regex** • **regex_auto**

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Parameter	Type	Description
project_id	String	**Definition** Project ID. **Range** N/A

Status code: 500

Table 6-407 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Obtain the brief list of structuring templates of the current tenant.

```
GET https://{endpoint}/v3/{project_id}/lts/struct/customtemplate/list

/v3/{project_id}/lts/struct/customtemplate/list
```

Example Responses

Status code: 200

The request is successful.

```
{
  "results" : [ {
    "create_time" : 1632897983441,
    "id" : "47629e46-287d-478c-8888-xxxxxxxxxxxx",
    "template_name" : "jsonTemplate",
    "template_type" : "json",
    "project_id" : "2a473356cca5487f8373be89xxxxxxxx"
  } ]
}
```

Status code: 500

The server has received the request but encountered an internal error.

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```
{
  "error_code" : "LTS.2017",
  "error_msg" : "Find struct template failed."
}
```

Status Codes

Status Code	Description
200	The request is successful.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.8.6 Querying Structuring Templates

Function

This API is used to query details about custom structuring templates, which are essential for structuring configuration.

A user can call this API for up to 50 times per second.

Calling Method

For details, see **Calling APIs**.

URI

GET /v3/{project_id}/lts/struct/customtemplate

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Table 6-408 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-409 Query Parameters

Parameter	Mandatory	Type	Description
id	No	String	**Definition** ID of the structuring template to be queried. If this parameter is left empty, all custom structuring templates in the project are returned. **Constraints** N/A **Range** N/A **Default Value** N/A

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Request Parameters

Table 6-410 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints:** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

Table 6-411 Response body parameters

Parameter	Type	Description
results	Array of **StructTemplateModel** objects	**Definition** Information about the queried custom structuring template.

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Table 6-412 StructTemplateModel

Parameter	Type	Description
project_id	String	**Definition** Project ID. **Range** N/A
template_name	String	**Definition** Structuring template name. **Range** N/A
template_type	String	**Definition** Structuring template type. **Range** • **regex** • **json** • **split** • **nginx** • **built_in** • **custom_regex** • **regex_auto**
demo_log	String	**Definition** Sample log event. **Range** N/A
demo_fields	Array of **DemoField** objects	**Definition** Fields generated after the sample log event is parsed based on the structuring configuration.
tag_fields	Array of **TagFieldNew** objects	**Definition** Fixed fields generated based on the log reporting channel or static fields manually configured by the user.
rule	**TemplateRule** object	**Definition** Structuring method.
demo_label	String	**Definition** Complete JSON structure example of the sample log and system fields. **Range** N/A

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Parameter	Type	Description
create_time	Long	**Definition** Time when the structuring template was created. **Range** N/A
id	String	**Definition** Unique ID of the custom structuring template. **Range** N/A

Table 6-413 DemoField

Parameter	Type	Description
field_name	String	**Definition** Name of an extracted field. **Range** N/A
content	String	**Definition** Sample content of the extracted field. **Range** N/A
type	String	**Definition** Field data type. **Range** • **string** • **long** • **float**
is_analysis	Boolean	**Definition** Whether quick analysis is enabled. If indexing is configured, the quick analysis setting specified on the **Index Settings** tab page is applied. **Range** • **true**: enables quick analysis. • **false**: disables quick analysis.

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Parameter	Type	Description
index	Integer	**Definition** Field sequence number in regular expression and delimiter methods. **Range** N/A
relation	String	**Definition** Hierarchical relationship between fields in a multi-level JSON file. **Range** N/A
user_defined_name	String	**Definition** Custom field alias in JSON and Nginx modes. **Range** N/A

Table 6-414 TagFieldNew

Parameter	Type	Description
field_name	String	**Definition** Tag field name. **Range** N/A
content	String	**Definition** Sample content of the tag field. **Range** N/A
type	String	**Definition** Tag field type. **Range** • **string** • **float** • **long**

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Parameter	Type	Description
is_analysis	Boolean	**Definition** Whether quick analysis is enabled. If indexing is configured, the quick analysis setting specified on the **Index Settings** tab page is applied. **Range** • **true**: enables quick analysis. • **false**: disables quick analysis.
index	Integer	**Definition** Field sequence number. **Range** N/A

Table 6-415 TemplateRule

Parameter	Type	Description
type	String	**Definition** Structuring method of the structuring template. **Range** • **regex** • **json** • **split** • **nginx** • **built_in** • **custom_regex** • **regex_auto**
param	String	**Definition** Structuring parameter. It contains configuration parameters required for the corresponding structuring type. For example, if **type** is set to **split**, the **param** field returns a JSON string containing delimiters. If **type** is set to **regex**, the **param** field returns the configured regular expression. **Range** N/A

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Status code: 500

Table 6-416 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Query the structuring template details.

```
GET https://{endpoint}/v3/{project_id}/lts/struct/customtemplate

/v3/{project_id}/lts/struct/customtemplate
```

Example Responses

Status code: 200

The request is successful.

```
{
  "results" : [ {
    "create_time" : 1641258099551,
    "demo_fields" : [ {
      "content" : "2022-01-03/14:52:28",
      "field_name" : "field1",
      "index" : 0,
      "is_analysis" : true,
      "type" : "string"
    }, {
      "content" : "this",
      "field_name" : "field2",
      "index" : 1,
      "is_analysis" : true,
      "type" : "string"
    }, {
      "content" : "log",
      "field_name" : "field3",
      "index" : 2,
      "is_analysis" : false,
      "type" : "string"
    }, {
      "content" : "is",
      "field_name" : "field4",
      "index" : 3,
      "is_analysis" : false,
      "type" : "string"
```

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```
    }, {
      "content" : "Error",
      "field_name" : "field5",
      "index" : 4,
      "is_analysis" : false,
      "type" : "string"
    }, {
      "content" : "NO",
      "field_name" : "field6",
      "index" : 5,
      "is_analysis" : false,
      "type" : "string"
    }, {
      "content" : "13 testing.",
      "field_name" : "field7",
      "index" : 6,
      "is_analysis" : false,
      "type" : "string"
    }, {
      "content" : "286",
      "field_name" : "field8",
      "index" : 7,
      "is_analysis" : false,
      "type" : "long"
    } ],
    "demo_log" : "2022-01-03/14:52:28 this log is Error NO 13 testing 286.",
    "id" : "43a8cc7b-b632-4c36-a65d-8150e98219f1",
    "project_id" : "2a473356cca5487f8373be89xxxxxxxx",
    "rule" : {
      "param" : "{\"keyObject\":
{\"0\":\"field1\",\"1\":\"field2\",\"2\":\"field3\",\"3\":\"field4\",\"4\":\"field5\",\"5\":\"field6\",\"6\":\"field7\",\"
7\":\"field8\"},\"tokenizer\":\" \"}",
      "type" : "split"
    },
    "demo_label" : "{}",
    "tag_fields" : [ {
      "content" : "172.16.10.69",
      "field_name" : "hostIP",
      "index" : 0,
      "is_analysis" : true,
      "type" : "string"
    } ],
    "template_name" : "testSplit13",
    "template_type" : "split"
  } ]
}
```


Status code: 500

The server has received the request but encountered an internal error.


```
{
  "error_code" : "LTS.2017",
  "error_msg" : "Find struct template failed."
}
```


Status Codes

Status Code	Description
200	The request is successful.
500	The server has received the request but encountered an internal error.

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Error Codes

See **Error Codes**.

6.9 Container Log Ingestion from AOM to LTS

6.9.1 Creating an Ingestion Rule

Function

This API is used to create a rule of ingesting container logs from AOM to LTS.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/lts/aom-mapping

Table 6-417 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**

Table 6-418 Query Parameters

Parameter	Mandatory	Type	Description
isBatch	Yes	Boolean	Whether automatic mapping is used. If you set this parameter to true, you do not need to set the container name and log stream parameters.

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Request Parameters

Table 6-419 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-420 Request body parameters

Parameter	Mandatory	Type	Description
rule_name	Yes	String	Ingestion rule name. Minimum: **1** Maximum: **100**
rule_info	Yes	**AomMappingRuleInfo** object	Rule details.

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Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain it, see section "10.3 Obtaining the Account ID, Project Resource Set ID, Log Group ID, and Log Stream ID." Minimum: **32** Maximum: **32**
rule_id	No	String	Ingestion rule ID.

Table 6-421 AomMappingRuleInfo

Parameter	Mandatory	Type	Description
cluster_id	Yes	String	Cluster ID.
cluster_name	Yes	String	Cluster name.
deployments_prefix	No	String	Log stream prefix. If **isBatch** is **true** and this parameter is set, the log stream name consists of this parameter and the parameter **deployments**. The length of the combined log stream name cannot exceed 64 characters.
deployments	Yes	Array of strings	Deployment. **ALL_DEPLOYMENTS** indicates all Deployments. **NOTE** During automatic mapping, all deployments need to be listed.
namespace	Yes	String	Namespace.
files	Yes	Array of **CreateAomMappingfilesInfo** objects	Log. **ALL_FILES** indicates all logs.
container_name	No	String	Container name.

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Table 6-422 CreateAomMappingfilesInfo

Parameter	Mandatory	Type	Description
file_name	Yes	String	Path name. Matching rule: ^/[A-Za-z0-9._/-]+/stdout.log/ *Up to two asterisks (*) are allowed.
log_stream_info	Yes	**CreateAomMappingLogStreamInfo** object	Log stream details.

Table 6-423 CreateAomMappingLogStreamInfo

Parameter	Mandatory	Type	Description
target_log_group_id	Yes	String	Log group ID. Minimum: **36** Maximum: **36**
target_log_group_name	Yes	String	Log group name. Minimum: **1** Maximum: **64**
target_log_stream_id	Yes	String	Log stream ID. Minimum: **36** Maximum: **36**
target_log_stream_name	Yes	String	Log stream name. Minimum: **1** Maximum: **64**

Response Parameters

Status code: 201

Table 6-424 Response body parameters

Parameter	Type	Description
[items]	Array of **CreateAomMappingRuleResp** objects	The ingestion configuration is created successfully.

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Table 6-425 CreateAomMappingRuleResp

Parameter	Type	Description
project_id	String	Project ID.
rule_name	String	Ingestion rule name.
rule_id	String	Ingestion rule ID.
rule_info	**AomMappingRuleInfoRespBody** object	Ingestion rule details.

Table 6-426 AomMappingRuleInfoRespBody

Parameter	Type	Description
cluster_id	String	Cluster ID.
cluster_name	String	Cluster name.
deployments_prefix	String	Log stream prefix.
deployments	Array of strings	Workload.
namespace	String	Namespace
container_name	String	Container name
files	Array of **AomMappingfilesInfos** objects	Ingestion rule details.

Table 6-427 AomMappingfilesInfos

Parameter	Type	Description
file_name	String	Path name.
log_stream_info	**AomMappingLogStreamInfos** object	Ingestion rule details.

Table 6-428 AomMappingLogStreamInfos

Parameter	Type	Description
target_log_group_id	String	Log group ID.

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Parameter	Type	Description
target_log_group_name	String	Target log group name.
target_log_stream_id	String	Log stream ID.
target_log_stream_name	String	Target log stream name.

Status code: 400

Table 6-429 Response body parameters

Parameter	Type	Description
code	String	Error code. Enumeration values: • **LTS.0742** • **LTS.0743** • **LTS.0014** • **LTS.0740** • **LTS.0744** • **LTS.0746**
details	String	Error message. Enumeration values: • **AOM mapping rule log group id does not exist** • **Operation DB failed** • **AOM mapping rule name already exists** • **AOM mapping rule param validate error** • **AOM mapping rule log stream id does not exist** • **AOM mapping rule log stream name already exist in another log group**

Status code: 401

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Table 6-430 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 403

Table 6-431 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-432 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Creating an ingestion rule

```
POST https://{endpoint}/v2/{project_id}/lts/aom-mapping

{
  "rule_name" : "abcde",
  "project_id" : "2a473356cca5487f8373be891bffc1cf",
  "rule_info" : {
    "cluster_id" : "4fae3587-0202-11eb-9ba9-0255ac100b02",
    "cluster_name" : "testdiskrate",
    "deployments_prefix" : "deployments_prefix",
    "deployments" : [ "__ALL_DEPLOYMENTS__" ],
    "namespace" : "default",
    "container_name" : "container-0",
    "files" : [ {
      "file_name" : "__ALL_FILES__",
      "log_stream_info" : {
        "target_log_group_id" : "8c9dcda6-d048-43a7-989b-c76c34b0ac85",
        "target_log_group_name" : "lts-group-wb28",
        "target_log_stream_id" : "2c228bd1-cbf1-41fb-b563-0ca2769202b2",
        "target_log_stream_name" : "mysql"
      }
    } ]
  }
}
```

Example Responses

Status code: 201

The ingestion rule is created.

```
[ {
  "project_id" : "",
  "rule_id" : "",
  "rule_info" : {
    "cluster_id" : "",
    "cluster_name" : "",
    "container_name" : "",
    "deployments_prefix" : "deployments_prefix",
    "deployments" : [ "" ],
    "files" : [ {
      "file_name" : "",
      "log_stream_info" : {
        "target_log_group_id" : "",
        "target_log_group_name" : "",
        "target_log_stream_id" : "",
        "target_log_stream_name" : ""
      }
    } ],
    "namespace" : ""
  },
```

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```
  "rule_name" : ""
} ]
```

Status code: 400

Bad Request: The request is invalid. Modify the request based on the description in **error_msg** before a retry.

```
{
  "errorCode" : "LTS.0014",
  "errorMessage" : "Operation DB failed"
}
```

Status code: 401

AuthFailed. Authentication failed. Check the token and try again.

```
{
  "error_code" : "LTS.0414",
  "error_msg" : "Invalid token"
}
```

Status code: 403

Forbidden.The request has been rejected.The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.

```
{
  "error_code" : "LTS.0003",
  "error_msg" : "parse_token_failed"
}
```

Status code: 500

InternalServerError.

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0102",
  "error_msg" : "ServiceUnavailable."
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Creating an ingestion rule

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;
```

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```
public class CreateAomMappingRulesSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateAomMappingRulesRequest request = new CreateAomMappingRulesRequest();
        AomMappingRequestInfo body = new AomMappingRequestInfo();
        AomMappingLogStreamInfo logStreamInfoFiles = new AomMappingLogStreamInfo();
        logStreamInfoFiles.withTargetLogGroupId("8c9dcda6-d048-43a7-989b-c76c34b0ac85")
            .withTargetLogGroupName("lts-group-wb28")
            .withTargetLogStreamId("2c228bd1-cbf1-41fb-b563-0ca2769202b2")
            .withTargetLogStreamName("mysql");
        List<AomMappingfilesInfo> listRuleInfoFiles = new ArrayList<>();
        listRuleInfoFiles.add(
            new AomMappingfilesInfo()
                .withFileName("__ALL_FILES__")
                .withLogStreamInfo(logStreamInfoFiles)
        );
        List<String> listRuleInfoDeployments = new ArrayList<>();
        listRuleInfoDeployments.add("__ALL_DEPLOYMENTS__");
        AomMappingRuleInfo ruleInfobody = new AomMappingRuleInfo();
        ruleInfobody.withClusterId("4fae3587-0202-11eb-9ba9-0255ac100b02")
            .withClusterName("testdiskrate")
            .withDeploymentsPrefix("deployments_prefix")
            .withDeployments(listRuleInfoDeployments)
            .withNamespace("default")
            .withContainerName("container-0")
            .withFiles(listRuleInfoFiles);
        body.withRuleInfo(ruleInfobody);
        body.withRuleName("abcde");
        body.withProjectId("2a473356cca5487f8373be891bffc1cf");
        request.withBody(body);
        try {
            CreateAomMappingRulesResponse response = client.createAomMappingRules(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Creating an ingestion rule

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateAomMappingRulesRequest()
        logStreamInfoFiles = AomMappingLogStreamInfo(
            target_log_group_id="8c9dcda6-d048-43a7-989b-c76c34b0ac85",
            target_log_group_name="lts-group-wb28",
            target_log_stream_id="2c228bd1-cbf1-41fb-b563-0ca2769202b2",
            target_log_stream_name="mysql"
        )
        listFilesRuleInfo = [
            AomMappingfilesInfo(
                file_name="__ALL_FILES__",
                log_stream_info=logStreamInfoFiles
            )
        ]
        listDeploymentsRuleInfo = [
            "__ALL_DEPLOYMENTS__"
        ]
        ruleInfobody = AomMappingRuleInfo(
            cluster_id="4fae3587-0202-11eb-9ba9-0255ac100b02",
            cluster_name="testdiskrate",
            deployments_prefix="deployments_prefix",
            deployments=listDeploymentsRuleInfo,
            namespace="default",
            container_name="container-0",
            files=listFilesRuleInfo
        )
        request.body = AomMappingRequestInfo(
            rule_info=ruleInfobody,
            rule_name="abcde",
            project_id="2a473356cca5487f8373be891bffc1cf"
        )
        response = client.create_aom_mapping_rules(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Creating an ingestion rule

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```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateAomMappingRulesRequest{}
    logStreamInfoFiles := &model.AomMappingLogStreamInfo{
        TargetLogGroupId: "8c9dcda6-d048-43a7-989b-c76c34b0ac85",
        TargetLogGroupName: "lts-group-wb28",
        TargetLogStreamId: "2c228bd1-cbf1-41fb-b563-0ca2769202b2",
        TargetLogStreamName: "mysql",
    }
    var listFilesRuleInfo = []model.AomMappingfilesInfo{
        {
            FileName: "__ALL_FILES__",
            LogStreamInfo: logStreamInfoFiles,
        },
    }
    var listDeploymentsRuleInfo = []string{
        "__ALL_DEPLOYMENTS__",
    }
    deploymentsPrefixRuleInfo:= "deployments_prefix"
    containerNameRuleInfo:= "container-0"
    ruleInfobody := &model.AomMappingRuleInfo{
        ClusterId: "4fae3587-0202-11eb-9ba9-0255ac100b02",
        ClusterName: "testdiskrate",
        DeploymentsPrefix: &deploymentsPrefixRuleInfo,
        Deployments: listDeploymentsRuleInfo,
        Namespace: "default",
        ContainerName: &containerNameRuleInfo,
        Files: listFilesRuleInfo,
    }
    request.Body = &model.AomMappingRequestInfo{
        RuleInfo: ruleInfobody,
        RuleName: "abcde",
        ProjectId: "2a473356cca5487f8373be891bffc1cf",
    }
    response, err := client.CreateAomMappingRules(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
```

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```
  }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
201	The ingestion rule is created.
400	Bad Request: The request is invalid. Modify the request based on the description in **error_msg** before a retry.
401	AuthFailed. Authentication failed. Check the token and try again.
403	Forbidden.The request has been rejected.The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.
500	InternalServerError. The server has received the request but encountered an internal error.
503	ServiceUnavailable. The requested service is unavailable.

Error Codes

See **Error Codes**.

6.9.2 Modifying an Ingestion Rule

Function

This API is used to modify an ingestion rule.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v2/{project_id}/lts/aom-mapping

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Table 6-433 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**

Request Parameters

Table 6-434 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-435 Request body parameters

Parameter	Mandatory	Type	Description
rule_id	Yes	String	Ingestion rule ID. Minimum: **36** Maximum: **36**
project_id	Yes	String	Project ID. Minimum: **32** Maximum: **32**
rule_name	Yes	String	Ingestion rule name. Minimum: **1** Maximum: **100**
rule_info	Yes	**UpdateAomMappingRuleInfo** object	Ingestion rule details.

Table 6-436 UpdateAomMappingRuleInfo

Parameter	Mandatory	Type	Description
cluster_id	Yes	String	Cluster ID.
cluster_name	Yes	String	Cluster name.
deployments	Yes	Array of strings	Deployment. **ALL_DEPLOYMENTS** indicates all Deployments. During automatic mapping, all Deployments need to be listed.
namespace	Yes	String	Namespace.
files	Yes	Array of **AomMappingfilesInfo** objects	Log details. **ALL_FILES** indicates all logs.
container_name	No	String	Container name.
deployments_prefix	No	String	Available custom log stream prefix.

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Table 6-437 AomMappingfilesInfo

Parameter	Mandatory	Type	Description
file_name	Yes	String	Path name. The matching rule is as follows: ^/[A-Za-z0-9.*_/-]+|stdout.log| (A maximum of two asterisks (**) are supported.)
log_stream_info	Yes	**UpdateAomMappingLogStreamInfo** object	Log stream information.

Table 6-438 UpdateAomMappingLogStreamInfo

Parameter	Mandatory	Type	Description
target_log_group_id	Yes	String	Log group ID. The ID must be valid. Minimum: **36** Maximum: **36**
target_log_group_name	Yes	String	Log group name. The log group name and ID cannot be empty at the same time. Minimum: **1** Maximum: **64**
target_log_stream_id	Yes	String	Log stream ID. The ID must be valid. Minimum: **36** Maximum: **36**
target_log_stream_name	Yes	String	Log stream name. The log stream name and ID cannot be empty at the same time. Minimum: **1** Maximum: **64**

Response Parameters

Status code: 200

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Table 6-439 Response body parameters

Parameter	Type	Description
project_id	String	Project ID.
rule_name	String	Ingestion rule name.
rule_id	String	Ingestion rule ID.
rule_info	**UpdateAomMappingRuleInfoRespBody** object	Ingestion rule details.

Table 6-440 UpdateAomMappingRuleInfoRespBody

Parameter	Type	Description
cluster_id	String	Cluster ID.
cluster_name	String	Cluster name.
deployments	Array of strings	Deployment. **ALL_DEPLOYMENTS** indicates all Deployments. **NOTE** During automatic mapping, all Deployments need to be listed.
namespace	String	Namespace.
files	Array of **UpdateAomMappingfilesInfos** objects	Log details. **ALL_FILES** indicates all logs.
container_name	String	Container name.
deployments_prefix	String	Available custom log stream prefix.

Table 6-441 UpdateAomMappingfilesInfos

Parameter	Type	Description
file_name	String	Path name. Matching rule: ^/[A-Za-z0-9._/-]+/*stdout.log*| *Up to two asterisks* (*) are allowed.
log_stream_info	**UpdateAomMappingLogStreamInfos** object	Log stream details.

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Table 6-442 UpdateAomMappingLogStreamInfos

Parameter	Type	Description
target_log_group_id	String	Log group ID. The ID must be valid. No default value. Minimum: **36** Maximum: **36**
target_log_group_name	String	Log group name. The log group name and ID cannot be empty at the same time. Minimum: **1** Maximum: **64**
target_log_stream_id	String	Log stream ID. The ID must be valid. No default value. Minimum: **36** Maximum: **36**
target_log_stream_name	String	Log stream name. The log stream name and ID cannot be empty at the same time. Minimum: **1** Maximum: **64**

Status code: 400

Table 6-443 Response body parameters

Parameter	Type	Description
code	String	Error code. Enumeration values: • **LTS.0742** • **LTS.0743** • **LTS.0014** • **LTS.0740** • **LTS.0744** • **LTS.0746**

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Parameter	Type	Description
details	String	Error message. Enumeration values: • **AOM mapping rule log group id does not exist** • **Operation DB failed** • **AOM mapping rule name already exists** • **AOM mapping rule param validate error** • **AOM mapping rule log stream id does not exist** • **AOM mapping rule log stream name already exist in another log group**

Status code: 401

Table 6-444 Response body parameters

Parameter	Type	Description
message	**Message401** object	Response message.

Table 6-445 Message401

Parameter	Type	Description
code	String	Error code. Enumeration values: • **LTS.0001**
details	String	Error message. Enumeration values: • **project verify error**

Status code: 403

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Table 6-446 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-447 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Modifying an ingestion rule

```
PUT https://{endpoint}/v2/{project_id}/lts/aom-mapping

{
  "rule_id" : "",
  "rule_name" : "abcde",
  "project_id" : "2a473356cca5487f8373be891bffc1cf",
  "rule_info" : {
    "cluster_id" : "4fae3587-0202-11eb-9ba9-0255ac100b02",
    "cluster_name" : "testdiskrate",
    "deployments" : [ "__ALL_DEPLOYMENTS__" ],
    "namespace" : "default",
    "container_name" : "container-0",
    "files" : [ {
      "file_name" : "__ALL_FILES__",
      "log_stream_info" : {
```

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```
      "target_log_group_id" : "8c9dcda6-d048-43a7-989b-c76c34b0ac85",
      "target_log_group_name" : "lts-group-wb28",
      "target_log_stream_id" : "2c228bd1-cbf1-41fb-b563-0ca2769202b2",
      "target_log_stream_name" : "mysql"
    }
   } ]
  }
}
```

Example Responses

Status code: 200

The ingestion rule is modified.

```
{
  "rule_id" : "",
  "project_id" : "",
  "rule_name" : "",
  "rule_info" : {
    "cluster_name" : "",
    "cluster_id" : "",
    "deployments" : [ ],
    "container_name" : "",
    "namespace" : "",
    "files" : [ {
      "file_name" : "",
      "log_stream_info" : {
        "target_log_stream_name" : "",
        "target_log_group_name" : "",
        "target_log_stream_id" : "",
        "target_log_group_id" : ""
      }
    } ]
  }
}
```

Status code: 400

Bad Request: The request is invalid. Modify the request based on the description in **error_msg** before a retry.

```
{
  "errorCode" : "LTS.0014",
  "errorMessage" : "Operation DB failed"
}
```

Status code: 401

AuthFailed. Authentication failed. Check the token and try again.

```
{
  "error_code" : "LTS.0414",
  "error_msg" : "Invalid token"
}
```

Status code: 403

Forbidden.The request has been rejected.The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.

```
{
  "error_code" : "LTS.0003",
  "error_msg" : "parse_token_failed"
}
```

Status code: 500

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InternalServerError.

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0102",
  "error_msg" : "ServiceUnavailable."
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Modifying an ingestion rule

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class UpdateAomMappingRulesSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateAomMappingRulesRequest request = new UpdateAomMappingRulesRequest();
        UpdateAomMappingRequest body = new UpdateAomMappingRequest();
        AomMappingLogStreamInfo logStreamInfoFiles = new AomMappingLogStreamInfo();
        logStreamInfoFiles.withTargetLogGroupId("8c9dcda6-d048-43a7-989b-c76c34b0ac85")
            .withTargetLogGroupName("lts-group-wb28")
            .withTargetLogStreamId("2c228bd1-cbf1-41fb-b563-0ca2769202b2")
            .withTargetLogStreamName("mysql");
        List<AomMappingfilesInfo> listRuleInfoFiles = new ArrayList<>();
        listRuleInfoFiles.add(
            new AomMappingfilesInfo()
                .withFileName("__ALL_FILES__")
                .withLogStreamInfo(logStreamInfoFiles)
        );
        List<String> listRuleInfoDeployments = new ArrayList<>();
        listRuleInfoDeployments.add("__ALL_DEPLOYMENTS__");
```

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```
        AomMappingRuleInfo ruleInfobody = new AomMappingRuleInfo();
        ruleInfobody.withClusterId("4fae3587-0202-11eb-9ba9-0255ac100b02")
            .withClusterName("testdiskrate")
            .withDeployments(listRuleInfoDeployments)
            .withNamespace("default")
            .withContainerName("container-0")
            .withFiles(listRuleInfoFiles);
        body.withRuleInfo(ruleInfobody);
        body.withRuleName("abcde");
        body.withProjectId("2a473356cca5487f8373be891bffc1cf");
        body.withRuleId("");
        request.withBody(body);
        try {
            UpdateAomMappingRulesResponse response = client.updateAomMappingRules(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Modifying an ingestion rule

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateAomMappingRulesRequest()
        logStreamInfoFiles = AomMappingLogStreamInfo(
            target_log_group_id="8c9dcda6-d048-43a7-989b-c76c34b0ac85",
            target_log_group_name="lts-group-wb28",
            target_log_stream_id="2c228bd1-cbf1-41fb-b563-0ca2769202b2",
            target_log_stream_name="mysql"
        )
        listFilesRuleInfo = [
            AomMappingfilesInfo(
                file_name="__ALL_FILES__",
```

```
            log_stream_info=logStreamInfoFiles
        )
    ]
    listDeploymentsRuleInfo = [
        "__ALL_DEPLOYMENTS__"
    ]
    ruleInfobody = AomMappingRuleInfo(
        cluster_id="4fae3587-0202-11eb-9ba9-0255ac100b02",
        cluster_name="testdiskrate",
        deployments=listDeploymentsRuleInfo,
        namespace="default",
        container_name="container-0",
        files=listFilesRuleInfo
    )
    request.body = UpdateAomMappingRequest(
        rule_info=ruleInfobody,
        rule_name="abcde",
        project_id="2a473356cca5487f8373be891bffc1cf",
        rule_id=""
    )
    response = client.update_aom_mapping_rules(request)
    print(response)
except exceptions.ClientRequestException as e:
    print(e.status_code)
    print(e.request_id)
    print(e.error_code)
    print(e.error_msg)
```

Go

Modifying an ingestion rule

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateAomMappingRulesRequest{}
    logStreamInfoFiles := &model.AomMappingLogStreamInfo{
        TargetLogGroupId: "8c9dcda6-d048-43a7-989b-c76c34b0ac85",
        TargetLogGroupName: "lts-group-wb28",
        TargetLogStreamId: "2c228bd1-cbf1-41fb-b563-0ca2769202b2",
```

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```
        TargetLogStreamName: "mysql",
    }
    var listFilesRuleInfo = []model.AomMappingfilesInfo{
        {
            FileName: "__ALL_FILES__",
            LogStreamInfo: logStreamInfoFiles,
        },
    }
    var listDeploymentsRuleInfo = []string{
        "__ALL_DEPLOYMENTS__",
    }
    containerNameRuleInfo:= "container-0"
    ruleInfobody := &model.AomMappingRuleInfo{
        ClusterId: "4fae3587-0202-11eb-9ba9-0255ac100b02",
        ClusterName: "testdiskrate",
        Deployments: listDeploymentsRuleInfo,
        Namespace: "default",
        ContainerName: &containerNameRuleInfo,
        Files: listFilesRuleInfo,
    }
    request.Body = &model.UpdateAomMappingRequest{
        RuleInfo: ruleInfobody,
        RuleName: "abcde",
        ProjectId: "2a473356cca5487f8373be891bffc1cf",
        RuleId: "",
    }
    response, err := client.UpdateAomMappingRules(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The ingestion rule is modified.
400	Bad Request: The request is invalid. Modify the request based on the description in **error_msg** before a retry.
401	AuthFailed. Authentication failed. Check the token and try again.
403	Forbidden.The request has been rejected.The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.
500	InternalServerError. The server has received the request but encountered an internal error.
503	ServiceUnavailable. The requested service is unavailable.

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Error Codes

See **Error Codes**.

6.9.3 Deleting an Ingestion Rule

Function

This API is used to delete a rule of ingesting container logs from AOM to LTS.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/{project_id}/lts/aom-mapping

Table 6-448 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**

Table 6-449 Query Parameters

Parameter	Mandatory	Type	Description
id	Yes	String	Ingestion rule ID. Minimum: **36** Maximum: **36**

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Request Parameters

Table 6-450 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

Table 6-451 Response body parameters

Parameter	Type	Description
[items]	Array of strings	The ingestion configuration is deleted successfully.

Status code: 400

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Table 6-452 Response body parameters

Parameter	Type	Description
code	String	Error code. Enumeration values: • **LTS.0744** • **LTS.0014** • **LTS.0745**
details	String	Error message. Enumeration values: • **AOM mapping rule param validate error** • **Operation DB failed** • **AOM mapping rule id is invalid**

Status code: 401

Table 6-453 Response body parameters

Parameter	Type	Description
message	Message401 object	Response message.

Table 6-454 Message401

Parameter	Type	Description
code	String	Error code. Enumeration values: • **LTS.0001**
details	String	Error message. Enumeration values: • **project verify error**

Status code: 403

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Table 6-455 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-456 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Deleting an ingestion rule

```
DELETE /v2/{project_id}/lts/aom-mapping?id={id}

DELETE https://{endpoint}/v2/{project_id}/lts/aom-mapping?id=3e14a212-a633-411d-a8e1-dc4042b1471a
```

Example Responses

Status code: 400

Bad Request: The request is invalid. Modify the request based on the description in **error_msg** before a retry.

```
{
  "errorCode" : "LTS.0014",
```

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```
  "errorMessage" : "Operation DB failed"
}
```

Status code: 401

AuthFailed. Authentication failed. Check the token and try again.

```
{
  "error_code" : "LTS.0414",
  "error_msg" : "Invalid token"
}
```

Status code: 403

Forbidden.The request has been rejected.The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.

```
{
  "error_code" : "LTS.0003",
  "error_msg" : "parse_token_failed"
}
```

Status code: 500

InternalServerError.

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0102",
  "error_msg" : "ServiceUnavailable."
}
```

Status Codes

Status Code	Description
200	The ingestion rule is deleted.
400	Bad Request: The request is invalid. Modify the request based on the description in **error_msg** before a retry.
401	AuthFailed. Authentication failed. Check the token and try again.
403	Forbidden.The request has been rejected.The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.
500	InternalServerError. The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

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6.9.4 Querying All Ingestion Rules

Function

This API is used to query all rules of ingesting container logs from AOM to LTS.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/lts/aom-mapping

Table 6-457 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**

Table 6-458 Query Parameters

Parameter	Mandatory	Type	Description
log_group_name	No	String	Log group name. Minimum: **1** Maximum: **64**
log_stream_name	No	String	Log stream name. Minimum: **1** Maximum: **64**

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Request Parameters

Table 6-459 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

Table 6-460 Response body parameters

Parameter	Type	Description
[items]	Array of **CreateAomMappingRuleResp** objects	The ingestion configuration is created successfully.

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Table 6-461 CreateAomMappingRuleResp

Parameter	Type	Description
project_id	String	Project ID.
rule_name	String	Ingestion rule name.
rule_id	String	Ingestion rule ID.
rule_info	**AomMappingRuleInfoRespBody** object	Ingestion rule details.

Table 6-462 AomMappingRuleInfoRespBody

Parameter	Type	Description
cluster_id	String	Cluster ID.
cluster_name	String	Cluster name.
deployments_prefix	String	Log stream prefix.
deployments	Array of strings	Workload.
namespace	String	Namespace
container_name	String	Container name
files	Array of **AomMappingfilesInfos** objects	Ingestion rule details.

Table 6-463 AomMappingfilesInfos

Parameter	Type	Description
file_name	String	Path name.
log_stream_info	**AomMappingLogStreamInfos** object	Ingestion rule details.

Table 6-464 AomMappingLogStreamInfos

Parameter	Type	Description
target_log_group_id	String	Log group ID.

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Parameter	Type	Description
target_log_group_name	String	Target log group name.
target_log_stream_id	String	Log stream ID.
target_log_stream_name	String	Target log stream name.

Status code: 400

Table 6-465 Response body parameters

Parameter	Type	Description
code	String	Error code. Enumeration values: • **LTS.0014**
details	String	Error message. Enumeration values: • **Operation DB failed**

Status code: 401

Table 6-466 Response body parameters

Parameter	Type	Description
message	**Message401** object	Response message.

Table 6-467 Message401

Parameter	Type	Description
code	String	Error code. Enumeration values: • **LTS.0001**
details	String	Error message. Enumeration values: • **project verify error**

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Status code: 403

Table 6-468 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-469 Response body parameters

Parameter	Type	Description
error_code	String	Error code. Enumeration values: • **LTS.0403**
error_msg	String	Error message.

Example Requests

None

Example Responses

Status code: 200

Details of all ingestion rules are returned.

```
[ {
  "project_id" : "",
  "rule_id" : "",
  "rule_info" : {
    "cluster_id" : "",
    "cluster_name" : "",
    "container_name" : "",
    "deployments" : [ "" ],
    "files" : [ {
      "file_name" : "",
      "log_stream_info" : {
        "target_log_group_id" : "",
        "target_log_group_name" : "",
```

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```
      "target_log_stream_id" : "",
      "target_log_stream_name" : ""
    }
   } ],
   "namespace" : ""
  },
  "rule_name" : ""
}, {
  "project_id" : "",
  "rule_id" : "",
  "rule_info" : {
   "cluster_id" : "",
   "cluster_name" : "",
   "container_name" : "",
   "deployments" : [ "" ],
   "files" : [ {
    "file_name" : "",
    "log_stream_info" : {
     "target_log_group_id" : "",
     "target_log_group_name" : "",
     "target_log_stream_id" : "",
     "target_log_stream_name" : ""
    }
   } ],
   "namespace" : ""
  },
  "rule_name" : ""
} ]
```

Status code: 400

Bad Request: The request is invalid. Modify the request based on the description in **error_msg** before a retry.

```
{
  "errorCode" : "LTS.0014",
  "errorMessage" : "Operation DB failed"
}
```

Status code: 401

AuthFailed. Authentication failed. Check the token and try again.

```
{
  "error_code" : "LTS.0414",
  "error_msg" : "Invalid token"
}
```

Status code: 403

Forbidden.The request has been rejected.The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.

```
{
  "error_code" : "LTS.0003",
  "error_msg" : "parse_token_failed"
}
```

Status code: 500

InternalServerError.

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0102",
  "error_msg" : "ServiceUnavailable."
}
```

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SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class ShowAomMappingRulesSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowAomMappingRulesRequest request = new ShowAomMappingRulesRequest();
        try {
            ShowAomMappingRulesResponse response = client.showAomMappingRules(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
```

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```
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowAomMappingRulesRequest()
        response = client.show_aom_mapping_rules(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowAomMappingRulesRequest{}
    response, err := client.ShowAomMappingRules(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

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More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Details of all ingestion rules are returned.
400	Bad Request: The request is invalid. Modify the request based on the description in **error_msg** before a retry.
401	AuthFailed. Authentication failed. Check the token and try again.
403	Forbidden.The request has been rejected.The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.
500	InternalServerError. The server has received the request but encountered an internal error.
503	ServiceUnavailable. The requested service is unavailable.

Error Codes

See **Error Codes**.

6.9.5 Querying an Ingestion Rule

Function

This API is used to query a specific rule of ingesting container logs from AOM to LTS.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/lts/aom-mapping/{rule_id}

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Table 6-470 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**
rule_id	Yes	String	Ingestion rule ID. Minimum: **36** Maximum: **36**

Request Parameters

Table 6-471 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Response Parameters

Status code: 200

Table 6-472 Response body parameters

Parameter	Type	Description
[items]	Array of **CreateAomMappingRuleResp** objects	The ingestion configuration is created successfully.

Table 6-473 CreateAomMappingRuleResp

Parameter	Type	Description
project_id	String	Project ID.
rule_name	String	Ingestion rule name.
rule_id	String	Ingestion rule ID.
rule_info	**AomMappingRuleInfoRespBody** object	Ingestion rule details.

Table 6-474 AomMappingRuleInfoRespBody

Parameter	Type	Description
cluster_id	String	Cluster ID.
cluster_name	String	Cluster name.
deployments_prefix	String	Log stream prefix.
deployments	Array of strings	Workload.
namespace	String	Namespace
container_name	String	Container name
files	Array of **AomMappingfilesInfos** objects	Ingestion rule details.

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Table 6-475 AomMappingfilesInfos

Parameter	Type	Description
file_name	String	Path name.
log_stream_info	**AomMappingLogStreamInfos** object	Ingestion rule details.

Table 6-476 AomMappingLogStreamInfos

Parameter	Type	Description
target_log_group_id	String	Log group ID.
target_log_group_name	String	Target log group name.
target_log_stream_id	String	Log stream ID.
target_log_stream_name	String	Target log stream name.

Status code: 400

Table 6-477 Response body parameters

Parameter	Type	Description
code	String	Error code. Enumeration values: • **LTS.0014**
details	String	Error message. Enumeration values: • **Operation DB failed**

Status code: 401

Table 6-478 Response body parameters

Parameter	Type	Description
message	**Message401** object	Response message.

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Table 6-479 Message401

Parameter	Type	Description
code	String	Error code. Enumeration values: • **LTS.0001**
details	String	Error message. Enumeration values: • **project verify error**

Status code: 403

Table 6-480 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-481 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

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Example Requests

None

Example Responses

Status code: 200

Details of the ingestion rule are returned.

```
[ {
  "project_id" : "",
  "rule_id" : "",
  "rule_info" : {
    "cluster_id" : "",
    "cluster_name" : "",
    "container_name" : "",
    "deployments" : [ "" ],
    "files" : [ {
      "file_name" : "",
      "log_stream_info" : {
        "target_log_group_id" : "",
        "target_log_group_name" : "",
        "target_log_stream_id" : "",
        "target_log_stream_name" : ""
      }
    } ],
    "namespace" : ""
  },
  "rule_name" : ""
} ]
```

Status code: 400

Bad Request: The request is invalid. Modify the request based on the description in **error_msg** before a retry.

```
{
  "errorCode" : "LTS.0014",
  "errorMessage" : "Operation DB failed"
}
```

Status code: 401

AuthFailed. Authentication failed. Check the token and try again.

```
{
  "error_code" : "LTS.0414",
  "error_msg" : "Invalid token"
}
```

Status code: 403

Forbidden.The request has been rejected.The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.

```
{
  "error_code" : "LTS.0003",
  "error_msg" : "parse_token_failed"
}
```

Status code: 500

InternalServerError.

The server has received the request but encountered an internal error.

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```
{
  "error_code" : "LTS.0102",
  "error_msg" : "ServiceUnavailable."
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class ShowAomMappingRuleSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ShowAomMappingRuleRequest request = new ShowAomMappingRuleRequest();
        request.withRuleId("{rule_id}");
        try {
            ShowAomMappingRuleResponse response = client.showAomMappingRule(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8
```

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```
import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ShowAomMappingRuleRequest()
        request.rule_id = "{rule_id}"
        response = client.show_aom_mapping_rule(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ShowAomMappingRuleRequest{}
```

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```
    request.RuleId = "{rule_id}"
    response, err := client.ShowAomMappingRule(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Details of the ingestion rule are returned.
400	Bad Request: The request is invalid. Modify the request based on the description in **error_msg** before a retry.
401	AuthFailed. Authentication failed. Check the token and try again.
403	Forbidden.The request has been rejected.The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.
500	InternalServerError. The server has received the request but encountered an internal error.
503	ServiceUnavailable. The requested service is unavailable.

Error Codes

See **Error Codes**.

6.10 Alarm Topics

6.10.1 Querying SMN Topics

Function

This API is used to query the SMN topics of a user. You can obtain their key information, such as topic names, IDs, and the quantity, helping you learn about the message push channels and statuses.

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Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/lts/notifications/topics

Table 6-482 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-483 Query Parameters

Parameter	Mandatory	Type	Description
offset	Yes	Integer	**Definition** Offset of the SMN topic list. The initial value is **0**. For all subsequent requests, use the offset value provided in the previous API response. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
limit	Yes	Integer	**Definition** Maximum number of results that can be returned in a single query of the SMN topic list. **Constraints** N/A **Range** • Minimum value: **1** • Maximum value: **100** **Default Value** 10
fuzzy_name	No	String	**Definition** Name of the topic to be searched for. Fuzzy match is performed based on the prefix match mode. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-484 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints:** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

Table 6-485 Response body parameters

Parameter	Type	Description
request_id	String	**Definition** Unique ID of the request. **Range** N/A
topic_count	Integer	**Definition** Total number of SMN topic information records. **Range** N/A
topics	Array of **Topics** objects	**Definition** SMN topic information.

Table 6-486 Topics

Parameter	Type	Description
name	String	**Definition** SMN topic name. **Range** N/A

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Parameter	Type	Description
topic_urn	String	**Definition** Unique resource ID of the SMN topic. **Range** N/A
display_name	String	**Definition** Sender name displayed in an email. **Range** N/A
push_policy	Integer	**Definition** Message push policy. Currently, this attribute is not modifiable. Support for modifying this setting will be added in a future update. **Range** • **0**: Failed messages will be retained in the failure queue. • **1**: Failed messages will be discarded.

Example Requests

Query SMN topics.

```
GET https://{endpoint}/v2/{project_id}/lts/notifications/topics

/v2/{project_id}/lts/notifications/topics?offset={offset}&limit={limit}
```

Example Responses

Status code: 200

The request is successful.

```
{
  "request_id" : "1",
  "topic_count" : 100,
  "topics" : [ {
    "name" : "huawei",
    "topic_urn" : "urn:smn:cn-north-7:{projectId}:fyy",
    "display_name" : "",
    "push_policy" : 0
  } ]
}
```

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Status Codes

Status Code	Description
200	The request is successful.

Error Codes

See **Error Codes**.

6.11 Message Template Management

6.11.1 Creating a Message Template

Function

This API is used to create a notification template. Currently, each account can create a maximum of 100 notification templates. After a notification template is created, its name cannot be changed.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/{domain_id}/lts/events/notification/templates

Table 6-487 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**
domain_id	Yes	String	Account ID. For details about how to obtain an account ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**

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Request Parameters

Table 6-488 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-489 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Notification rule name, which is mandatory. The value can contain only digits, letters, underscores (*), and hyphens (-), and cannot start or end with special characters such as underscores (*). The value can contain 1 to 100 characters and cannot be changed after being created. Minimum: **1** Maximum: **100**
type	No	Array of strings	This field is reserved and optional.
desc	No	String	Template description, which is optional. Enter a maximum of 1,024 characters, including only digits, letters, and underscores (*). Do not start or end with an underscore (*). Minimum: **0** Maximum: **1024**
source	Yes	String	Template source. Currently, this parameter must be set to LTS. Otherwise, the template cannot be filtered. Minimum: **3** Maximum: **3**
locale	Yes	String	Language, which is mandatory. The value can be **zh-cn** or **en-us**. Enumeration values: • **zh-cn** • **en-us**
templates	Yes	Array of **SubTemplate** objects	Template body is an array.

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Table 6-490 SubTemplate

Parameter	Mandatory	Type	Description
sub_type	Yes	String	Template subtype. Only the following types are supported: **sms**, **dingding** (DingTalk), **wechat** (WeCom), **webhook**, and **email**. Enumeration values: • **sms** • **dingding** • **wechat** • **webhook** • **email** • **voice**

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Parameter	Mandatory	Type	Description
content	Yes	String	In the sub-template body, the variables following the dollar sign ($) can only be the following variables. The supported variables vary according to alarm rule types (keyword or SQL). Currently, the two alarm rule types have the following common variables: Severity: ${event_severity}; Occurred: ${starts_at}; Alarm source: $event.metadata.resource_provider; Resource type: $event.metadata.resource_type; Resource ID: ${resources}; Statistical type: by keyword; Expression: $event.annotations.condition_expression; Current value: $event.annotations.current_value; Statistical period: $event.annotations.frequency; Variables specific to keyword alarms: Query time: $event.annotations.results[0].time; Query log: $event.annotations.results[0].raw_results; Variables specific to SQL alarms: Log group/stream name: $event.annotations.results[0].resource_id; Query statement: $event.annotations.results[0].sql;

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Parameter	Mandatory	Type	Description
			Query time: $event.annotations.results[0].time; Query URL: $event.annotations.results[0].url; Query log: $event.annotations.results[0].raw_results; **NOTE** Each variable must be followed by an English semicolon (;). Otherwise, the template replacement fails. Minimum: **2** Maximum: **1024**
topic	No	String	Email subject. This parameter is valid only when **sub_type** is set to **email**.

Response Parameters

Status code: 200

Table 6-491 Response body parameters

Parameter	Type	Description
name	String	**Definition** Message template name. **Range** N/A
type	Array of strings	**Definition** Notification method. **Range** • **sms** • **dingding** • **wechat** • **webhook** • **email** • **voice** • **feishu** • **welink**

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Parameter	Type	Description
desc	String	**Definition** Message template description. **Range** N/A
source	String	**Definition** Message template source. **Range** N/A
templates	Array of **SubTemplateResBody** objects	**Definition** Details about the message template of different notification channels.
locale	String	**Definition** Message header language. A default header, such as "Dear customer," will be added to the beginning of all messages in the language you select. **Range** • **zh-cn** • **en-us**

Table 6-492 SubTemplateResBody

Parameter	Type	Description
sub_type	String	**Definition** Notification channel of the message template. **Range** • **sms** • **dingding** • **wechat** • **webhook** • **email** • **voice** • **feishu** • **welink**

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Parameter	Type	Description
content	String	**Definition** Message template body of the corresponding notification channel. A variable following a dollar sign ($) can only be one of the following variables. The supported variables vary according to alarm rule types (keyword or SQL). Currently, the two alarm rule types have the following common variables: Alarm severity: ${event_severity}; Occurrence time: ${starts_at}; Alarm source: $event.metadata.resource_provider; Resource type: $event.metadata.resource_type; Resource ID: ${resources}; Statistical type: by keyword; Expression: $event.annotations.condition_expression; Current value: $event.annotations.current_value; Statistical period: $event.annotations.frequency; Variables specific to keyword alarms: Query time: $event.annotations.results[0].time; Query log: $event.annotations.results[0].raw_results; Variables specific to SQL alarms: Log group/stream name: $event.annotations.results[0].resource_id; Query statement: $event.annotations.results[0].sql; Query time: $event.annotations.results[0].time; Query URL: $event.annotations.results[0].url; Query log: $event.annotations.results[0].raw_results; Alarm severity: ${event_severity};

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Parameter	Type	Description
		Occurrence time: ${starts_at}; Alarm source: $event.metadata.resource_provider; Resource type: $event.metadata.resource_type; Resource ID: ${resources}; Statistical type: by keyword; Expression: $event.annotations.condition_expression; Current value: $event.annotations.current_value; Statistical period: $event.annotations.frequency; Variables specific to keyword alarms: Query time: $event.annotations.results[0].time; Query log: $event.annotations.results[0].raw_results; Variables specific to SQL alarms: Log group/stream name: $event.annotations.results[0].resource_id; Query statement: $event.annotations.results[0].sql; Query time: $event.annotations.results[0].time; Query URL: $event.annotations.results[0].url; Query log: $event.annotations.results[0].raw_results; **NOTE** Each variable must be followed by an English semicolon (;). Otherwise, the template replacement fails. **Range** N/A

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Parameter	Type	Description
topic	String	**Definition** Email subject. This field is valid when **sub_type** (notification channel) is set to **email**. **Range** N/A
sendType	String	**Definition** Rendering mode of the message. This field is valid only when the message template type is **webhook**. **Range** • **HTML** • **JSON**
version	String	**Definition** Applicable version of the message template. **Range** **v1**: indicates the LTS message template.

Status code: 400

Table 6-493 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

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Table 6-494 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Creating a message template

```
POST https://{endpoint}/v2/{project_id}/{domain_id}/lts/events/notification/templates

{
  "name" : "xxx",
  "desc" : "xxxxxx",
  "type" : [ ],
  "source" : "LTS",
  "locale" : "zh-cn",
  "templates" : [ {
    "sub_type" : "sms",
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;"
  }, {
    "sub_type" : "dingding",
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;"
  }, {
    "sub_type" : "wechat",
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;"
  }, {
    "sub_type" : "webhook",
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;"
  }, {
    "sub_type" : "email",
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nAlarm source: $event.metadata.resource_provider;\nResource type: $event.metadata.resource_type;\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;\nQuery time: $event.annotations.results[0].time;\nQuery log: $event.annotations.results[0].raw_results;"
  }, {
    "sub_type" : "voice",
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;"
  } ]
}
```

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Example Responses

Status code: 200

The request is successful.


```
{
  "desc" : "description",
  "locale" : "zh-cn",
  "name" : "postman-test",
  "source" : "LTS",
  "templates" : [ {
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;",
    "sub_type" : "sms"
  }, {
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;",
    "sub_type" : "dingding"
  }, {
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;",
    "sub_type" : "wechat"
  }, {
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;",
    "sub_type" : "webhook"
  }, {
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nAlarm source: $event.metadata.resource_provider;\nResource type: $event.metadata.resource_type;\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;\nQuery time: $event.annotations.results[0].time;\nQuery log: $event.annotations.results[0].raw_results;",
    "sub_type" : "email"
  }, {
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;",
    "sub_type" : "voice"
  } ],
  "type" : [ ]
}
```


Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.


```
{
  "error_code" : "LTS.2014",
  "error_msg" : "desc is invalid!"
}
```


Status code: 500

The server has received the request but encountered an internal error.


```
{
  "error_code" : "LTS.2014",
  "error_msg" : "Failed to create notification template."
}
```


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SDK Sample Code

The SDK sample code is as follows.

Java

Creating a message template

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateNotificationTemplateSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateNotificationTemplateRequest request = new CreateNotificationTemplateRequest();
        request.withDomainId("{domain_id}");
        CreateNotificationTemplateRequestBody body = new CreateNotificationTemplateRequestBody();
        List<SubTemplate> listbodyTemplates = new ArrayList<>();
        listbodyTemplates.add(
            new SubTemplate()
                .withSubType(SubTemplate.SubTypeEnum.fromValue("sms"))
                .withContent("Severity: ${event_severity};
Occurred: ${starts_at};
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;")
        );
        listbodyTemplates.add(
            new SubTemplate()
                .withSubType(SubTemplate.SubTypeEnum.fromValue("dingding"))
                .withContent("Severity: ${event_severity};
Occurred: ${starts_at};
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;")
        );
        listbodyTemplates.add(
```

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```
            new SubTemplate()
                .withSubType(SubTemplate.SubTypeEnum.fromValue("wechat"))
                .withContent("Severity: ${event_severity};
Occurred: ${starts_at};
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;")
        );
        listbodyTemplates.add(
            new SubTemplate()
                .withSubType(SubTemplate.SubTypeEnum.fromValue("webhook"))
                .withContent("Severity: ${event_severity};
Occurred: ${starts_at};
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;")
        );
        listbodyTemplates.add(
            new SubTemplate()
                .withSubType(SubTemplate.SubTypeEnum.fromValue("email"))
                .withContent("Severity: ${event_severity};
Occurred: ${starts_at};
Alarm source: $event.metadata.resource_provider;
Resource type: $event.metadata.resource_type;
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;
Query time: $event.annotations.results[0].time;
Query log: $event.annotations.results[0].raw_results;")
        );
        listbodyTemplates.add(
            new SubTemplate()
                .withSubType(SubTemplate.SubTypeEnum.fromValue("voice"))
                .withContent("Severity: ${event_severity};
Occurred: ${starts_at};
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;")
        );
        body.withTemplates(listbodyTemplates);
        body.withLocale(CreateNotificationTemplateRequestBody.LocaleEnum.fromValue("zh-cn"));
        body.withSource("LTS");
        body.withDesc("xxxxxx");
        body.withName("xxx");
        request.withBody(body);
        try {
            CreateNotificationTemplateResponse response = client.createNotificationTemplate(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

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Python

Creating a message template

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateNotificationTemplateRequest()
        request.domain_id = "{domain_id}"
        listTemplatesbody = [
            SubTemplate(
                sub_type="sms",
                content="Severity: ${event_severity};
        Occurred: ${starts_at};
        Resource ID: ${resources};
        Statistical type: by keyword;
        Expression: $event.annotations.condition_expression;
        Current value: $event.annotations.current_value;
        Statistical period: $event.annotations.frequency;"
            ),
            SubTemplate(
                sub_type="dingding",
                content="Severity: ${event_severity};
        Occurred: ${starts_at};
        Resource ID: ${resources};
        Statistical type: by keyword;
        Expression: $event.annotations.condition_expression;
        Current value: $event.annotations.current_value;
        Statistical period: $event.annotations.frequency;"
            ),
            SubTemplate(
                sub_type="wechat",
                content="Severity: ${event_severity};
        Occurred: ${starts_at};
        Resource ID: ${resources};
        Statistical type: by keyword;
        Expression: $event.annotations.condition_expression;
        Current value: $event.annotations.current_value;
        Statistical period: $event.annotations.frequency;"
            ),
            SubTemplate(
                sub_type="webhook",
                content="Severity: ${event_severity};
        Occurred: ${starts_at};
        Resource ID: ${resources};
        Statistical type: by keyword;
        Expression: $event.annotations.condition_expression;
```

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```
        Current value: $event.annotations.current_value;
        Statistical period: $event.annotations.frequency;"
            ),
            SubTemplate(
                sub_type="email",
                content="Severity: ${event_severity};
        Occurred: ${starts_at};
        Alarm source: $event.metadata.resource_provider;
        Resource type: $event.metadata.resource_type;
        Resource ID: ${resources};
        Statistical type: by keyword;
        Expression: $event.annotations.condition_expression;
        Current value: $event.annotations.current_value;
        Statistical period: $event.annotations.frequency;
        Query time: $event.annotations.results[0].time;
        Query log: $event.annotations.results[0].raw_results;"
            ),
            SubTemplate(
                sub_type="voice",
                content="Severity: ${event_severity};
        Occurred: ${starts_at};
        Resource ID: ${resources};
        Statistical type: by keyword;
        Expression: $event.annotations.condition_expression;
        Current value: $event.annotations.current_value;
        Statistical period: $event.annotations.frequency;"
            )
        ]
        request.body = CreateNotificationTemplateRequestBody(
            templates=listTemplatesbody,
            locale="zh-cn",
            source="LTS",
            desc="xxxxxx",
            name="xxx"
        )
        response = client.create_notification_template(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Creating a message template

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
```

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```
    Build()

client := lts.NewLtsClient(
    lts.LtsClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.CreateNotificationTemplateRequest{}
request.DomainId = "{domain_id}"
var listTemplatesbody = []model.SubTemplate{
    {
        SubType: model.GetSubTemplateSubTypeEnum().SMS,
        Content: "Severity: ${event_severity};
Occurred: ${starts_at};
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;",
    },
    {
        SubType: model.GetSubTemplateSubTypeEnum().DINGDING,
        Content: "Severity: ${event_severity};
Occurred: ${starts_at};
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;",
    },
    {
        SubType: model.GetSubTemplateSubTypeEnum().WECHAT,
        Content: "Severity: ${event_severity};
Occurred: ${starts_at};
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;",
    },
    {
        SubType: model.GetSubTemplateSubTypeEnum().WEBHOOK,
        Content: "Severity: ${event_severity};
Occurred: ${starts_at};
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;",
    },
    {
        SubType: model.GetSubTemplateSubTypeEnum().EMAIL,
        Content: "Severity: ${event_severity};
Occurred: ${starts_at};
Alarm source: $event.metadata.resource_provider;
Resource type: $event.metadata.resource_type;
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;
Query time: $event.annotations.results[0].time;
Query log: $event.annotations.results[0].raw_results;",
    },
    {
        SubType: model.GetSubTemplateSubTypeEnum().VOICE,
        Content: "Severity: ${event_severity};
Occurred: ${starts_at};
```

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```
    Resource ID: ${resources};
    Statistical type: by keyword;
    Expression: $event.annotations.condition_expression;
    Current value: $event.annotations.current_value;
    Statistical period: $event.annotations.frequency;",
        },
    }
    descCreateNotificationTemplateRequestBody:= "xxxxxx"
    request.Body = &model.CreateNotificationTemplateRequestBody{
        Templates: listTemplatesbody,
        Locale: model.GetCreateNotificationTemplateRequestBodyLocaleEnum().ZH_CN,
        Source: "LTS",
        Desc: &descCreateNotificationTemplateRequestBody,
        Name: "xxx",
    }
    response, err := client.CreateNotificationTemplate(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The request is successful.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.11.2 Modifying a Message Template

Function

This API is used to modify a notification template base on its name.

Calling Method

For details, see **Calling APIs**.

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URI

PUT /v2/{project_id}/{domain_id}/lts/events/notification/templates

Table 6-495 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**
domain_id	Yes	String	Account ID. For details about how to obtain an account ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**

Request Parameters

Table 6-496 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-497 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Notification rule name, which is mandatory. The value can contain only digits, letters, underscores (*), and hyphens (-), and cannot start or end with special characters such as underscores (*). The value can contain 1 to 100 characters and cannot be changed after being created. Minimum: **1** Maximum: **100**
type	No	Array of strings	This field is reserved and optional.
desc	No	String	Template description, which is optional. Enter a maximum of 1,024 characters, including only digits, letters, and underscores (*). Do not start or end with an underscore (*). Minimum: **0** Maximum: **1024**
source	Yes	String	Template source. Currently, this parameter must be set to LTS. Otherwise, the template cannot be filtered. Minimum: **3** Maximum: **3**

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Parameter	Mandatory	Type	Description
locale	Yes	String	Language, which is mandatory. The value can be **zh-cn** or **en-us**. Enumeration values: • **zh-cn** • **en-us**
templates	Yes	Array of **UpdateSubTemplate** objects	Template body, which is an array.

Table 6-498 UpdateSubTemplate

Parameter	Mandatory	Type	Description
sub_type	Yes	String	Template subtype. Only the following types are supported: **sms**, **dingding** (DingTalk), **wechat** (WeCom), **webhook**, and **email**. Enumeration values: • **sms** • **dingding** • **wechat** • **webhook** • **email** • **voice**

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Parameter	Mandatory	Type	Description
content	Yes	String	In the sub-template body, the variables following the dollar sign ($) can only be the following variables. The supported variables vary according to alarm rule types (keyword or SQL). Currently, the two alarm rule types have the following common variables: Severity: ${event_severity}; Occurred: ${starts_at}; Alarm source: $event.metadata.resource_provider; Resource type: $event.metadata.resource_type; Resource ID: ${resources}; Statistical type: by keyword; Expression: $event.annotations.condition_expression; Current value: $event.annotations.current_value; Statistical period: $event.annotations.frequency; Variables specific to keyword alarms: Query time: $event.annotations.results[0].time; Query log: $event.annotations.results[0].raw_results; Variables specific to SQL alarms: Log group/stream name: $event.annotations.results[0].resource_id; Query statement: $event.annotations.results[0].sql;

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Parameter	Mandatory	Type	Description
			Query time: $event.annotations.results[0].time; Query URL: $event.annotations.results[0].url; Query log: $event.annotations.results[0].raw_results; **NOTE** Each variable must be followed by an English semicolon (;). Otherwise, the template replacement fails.
topic	No	String	Email subject. This parameter is valid only when **sub_type** is set to **email**.

Response Parameters

Status code: 201

Table 6-499 Response body parameters

Parameter	Type	Description
name	String	**Definition** Message template name. **Range** N/A
type	Array of strings	**Definition** Notification method. **Range** • **sms** • **dingding** • **wechat** • **webhook** • **email** • **voice** • **feishu** • **welink**

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Parameter	Type	Description
desc	String	**Definition** Message template description. **Range** N/A
source	String	**Definition** Message template source. **Range** N/A
templates	Array of **SubTemplateResBody** objects	**Definition** Details about the message template of different notification channels.
locale	String	**Definition** Message header language. A default header, such as "Dear customer," will be added to the beginning of all messages in the language you select. **Range** • **zh-cn** • **en-us**

Table 6-500 SubTemplateResBody

Parameter	Type	Description
sub_type	String	**Definition** Notification channel of the message template. **Range** • **sms** • **dingding** • **wechat** • **webhook** • **email** • **voice** • **feishu** • **welink**

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Parameter	Type	Description
content	String	**Definition** Message template body of the corresponding notification channel. A variable following a dollar sign ($) can only be one of the following variables. The supported variables vary according to alarm rule types (keyword or SQL). Currently, the two alarm rule types have the following common variables: Alarm severity: ${event_severity}; Occurrence time: ${starts_at}; Alarm source: $event.metadata.resource_provider; Resource type: $event.metadata.resource_type; Resource ID: ${resources}; Statistical type: by keyword; Expression: $event.annotations.condition_expression; Current value: $event.annotations.current_value; Statistical period: $event.annotations.frequency; Variables specific to keyword alarms: Query time: $event.annotations.results[0].time; Query log: $event.annotations.results[0].raw_results; Variables specific to SQL alarms: Log group/stream name: $event.annotations.results[0].resource_id; Query statement: $event.annotations.results[0].sql; Query time: $event.annotations.results[0].time; Query URL: $event.annotations.results[0].url; Query log: $event.annotations.results[0].raw_results; Alarm severity: ${event_severity};

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Parameter	Type	Description
		Occurrence time: ${starts_at}; Alarm source: $event.metadata.resource_provider; Resource type: $event.metadata.resource_type; Resource ID: ${resources}; Statistical type: by keyword; Expression: $event.annotations.condition_expression; Current value: $event.annotations.current_value; Statistical period: $event.annotations.frequency; Variables specific to keyword alarms: Query time: $event.annotations.results[0].time; Query log: $event.annotations.results[0].raw_results; Variables specific to SQL alarms: Log group/stream name: $event.annotations.results[0].resource_id; Query statement: $event.annotations.results[0].sql; Query time: $event.annotations.results[0].time; Query URL: $event.annotations.results[0].url; Query log: $event.annotations.results[0].raw_results; **NOTE** Each variable must be followed by an English semicolon (;). Otherwise, the template replacement fails. **Range** N/A

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Parameter	Type	Description
topic	String	**Definition** Email subject. This field is valid when **sub_type** (notification channel) is set to **email**. **Range** N/A
sendType	String	**Definition** Rendering mode of the message. This field is valid only when the message template type is **webhook**. **Range** • **HTML** • **JSON**
version	String	**Definition** Applicable version of the message template. **Range** **v1**: indicates the LTS message template.

Status code: 400

Table 6-501 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

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Table 6-502 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Modifying a message template

```
PUT https://{endpoint}/v2/{project_id}/{domain_id}/lts/events/notification/templates

{
  "name" : "xxx",
  "desc" : "xxxxxx",
  "type" : [ ],
  "source" : "LTS",
  "locale" : "zh-cn",
  "templates" : [ {
    "sub_type" : "sms",
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;"
  }, {
    "sub_type" : "dingding",
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;"
  }, {
    "sub_type" : "wechat",
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;"
  }, {
    "sub_type" : "webhook",
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;"
  }, {
    "sub_type" : "email",
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nAlarm source: $event.metadata.resource_provider;\nResource type: $event.metadata.resource_type;\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;\nQuery time: $event.annotations.results[0].time;\nQuery log: $event.annotations.results[0].raw_results;"
  }, {
    "sub_type" : "voice",
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;"
  } ]
}
```

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Example Responses

Status code: 201

The request is successful.


```
{
  "desc" : "description",
  "locale" : "zh-cn",
  "name" : "postman-test1",
  "source" : "LTS",
  "templates" : [ {
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;",
    "sub_type" : "sms"
  }, {
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;",
    "sub_type" : "dingding"
  }, {
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;",
    "sub_type" : "wechat"
  }, {
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;",
    "sub_type" : "webhook"
  }, {
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nAlarm source: $event.metadata.resource_provider;\nResource type: $event.metadata.resource_type;\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;\nQuery time: $event.annotations.results[0].time;\nQuery log: $event.annotations.results[0].raw_results;",
    "sub_type" : "email"
  }, {
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;",
    "sub_type" : "voice"
  } ],
  "type" : [ ]
}
```


Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.


```
{
  "error_code" : "LTS.2016",
  "error_msg" : "desc is invalid!"
}
```


Status code: 500

The server has received the request but encountered an internal error.


```
{
  "error_code" : "LTS.2016",
  "error_msg" : "Failed to update notification template"
}
```


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SDK Sample Code

The SDK sample code is as follows.

Java

Modifying a message template

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class UpdateNotificationTemplateSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateNotificationTemplateRequest request = new UpdateNotificationTemplateRequest();
        request.withDomainId("{domain_id}");
        CreateNotificationTemplateRequestBody body = new CreateNotificationTemplateRequestBody();
        List<SubTemplate> listbodyTemplates = new ArrayList<>();
        listbodyTemplates.add(
            new SubTemplate()
                .withSubType(SubTemplate.SubTypeEnum.fromValue("sms"))
                .withContent("Severity: ${event_severity};
Occurred: ${starts_at};
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;")
        );
        listbodyTemplates.add(
            new SubTemplate()
                .withSubType(SubTemplate.SubTypeEnum.fromValue("dingding"))
                .withContent("Severity: ${event_severity};
Occurred: ${starts_at};
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;")
        );
        listbodyTemplates.add(
```

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```
            new SubTemplate()
                .withSubType(SubTemplate.SubTypeEnum.fromValue("wechat"))
                .withContent("Severity: ${event_severity};
Occurred: ${starts_at};
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;")
        );
        listbodyTemplates.add(
            new SubTemplate()
                .withSubType(SubTemplate.SubTypeEnum.fromValue("webhook"))
                .withContent("Severity: ${event_severity};
Occurred: ${starts_at};
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;")
        );
        listbodyTemplates.add(
            new SubTemplate()
                .withSubType(SubTemplate.SubTypeEnum.fromValue("email"))
                .withContent("Severity: ${event_severity};
Occurred: ${starts_at};
Alarm source: $event.metadata.resource_provider;
Resource type: $event.metadata.resource_type;
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;
Query time: $event.annotations.results[0].time;
Query log: $event.annotations.results[0].raw_results;")
        );
        listbodyTemplates.add(
            new SubTemplate()
                .withSubType(SubTemplate.SubTypeEnum.fromValue("voice"))
                .withContent("Severity: ${event_severity};
Occurred: ${starts_at};
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;")
        );
        body.withTemplates(listbodyTemplates);
        body.withLocale(CreateNotificationTemplateRequestBody.LocaleEnum.fromValue("zh-cn"));
        body.withSource("LTS");
        body.withDesc("xxxxxx");
        body.withName("xxx");
        request.withBody(body);
        try {
            UpdateNotificationTemplateResponse response = client.updateNotificationTemplate(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

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Python

Modifying a message template

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateNotificationTemplateRequest()
        request.domain_id = "{domain_id}"
        listTemplatesbody = [
            SubTemplate(
                sub_type="sms",
                content="Severity: ${event_severity};
        Occurred: ${starts_at};
        Resource ID: ${resources};
        Statistical type: by keyword;
        Expression: $event.annotations.condition_expression;
        Current value: $event.annotations.current_value;
        Statistical period: $event.annotations.frequency;"
            ),
            SubTemplate(
                sub_type="dingding",
                content="Severity: ${event_severity};
        Occurred: ${starts_at};
        Resource ID: ${resources};
        Statistical type: by keyword;
        Expression: $event.annotations.condition_expression;
        Current value: $event.annotations.current_value;
        Statistical period: $event.annotations.frequency;"
            ),
            SubTemplate(
                sub_type="wechat",
                content="Severity: ${event_severity};
        Occurred: ${starts_at};
        Resource ID: ${resources};
        Statistical type: by keyword;
        Expression: $event.annotations.condition_expression;
        Current value: $event.annotations.current_value;
        Statistical period: $event.annotations.frequency;"
            ),
            SubTemplate(
                sub_type="webhook",
                content="Severity: ${event_severity};
        Occurred: ${starts_at};
        Resource ID: ${resources};
        Statistical type: by keyword;
        Expression: $event.annotations.condition_expression;
```

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```
        Current value: $event.annotations.current_value;
        Statistical period: $event.annotations.frequency;"
            ),
            SubTemplate(
                sub_type="email",
                content="Severity: ${event_severity};
        Occurred: ${starts_at};
        Alarm source: $event.metadata.resource_provider;
        Resource type: $event.metadata.resource_type;
        Resource ID: ${resources};
        Statistical type: by keyword;
        Expression: $event.annotations.condition_expression;
        Current value: $event.annotations.current_value;
        Statistical period: $event.annotations.frequency;
        Query time: $event.annotations.results[0].time;
        Query log: $event.annotations.results[0].raw_results;"
            ),
            SubTemplate(
                sub_type="voice",
                content="Severity: ${event_severity};
        Occurred: ${starts_at};
        Resource ID: ${resources};
        Statistical type: by keyword;
        Expression: $event.annotations.condition_expression;
        Current value: $event.annotations.current_value;
        Statistical period: $event.annotations.frequency;"
            )
        ]
        request.body = CreateNotificationTemplateRequestBody(
            templates=listTemplatesbody,
            locale="zh-cn",
            source="LTS",
            desc="xxxxxx",
            name="xxx"
        )
        response = client.update_notification_template(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Modifying a message template

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
```

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```
    Build()

client := lts.NewLtsClient(
    lts.LtsClientBuilder().
        WithRegion(region.ValueOf("<YOUR REGION>")).
        WithCredential(auth).
        Build())

request := &model.UpdateNotificationTemplateRequest{}
request.DomainId = "{domain_id}"
var listTemplatesbody = []model.SubTemplate{
    {
        SubType: model.GetSubTemplateSubTypeEnum().SMS,
        Content: "Severity: ${event_severity};
Occurred: ${starts_at};
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;",
    },
    {
        SubType: model.GetSubTemplateSubTypeEnum().DINGDING,
        Content: "Severity: ${event_severity};
Occurred: ${starts_at};
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;",
    },
    {
        SubType: model.GetSubTemplateSubTypeEnum().WECHAT,
        Content: "Severity: ${event_severity};
Occurred: ${starts_at};
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;",
    },
    {
        SubType: model.GetSubTemplateSubTypeEnum().WEBHOOK,
        Content: "Severity: ${event_severity};
Occurred: ${starts_at};
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;",
    },
    {
        SubType: model.GetSubTemplateSubTypeEnum().EMAIL,
        Content: "Severity: ${event_severity};
Occurred: ${starts_at};
Alarm source: $event.metadata.resource_provider;
Resource type: $event.metadata.resource_type;
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;
Query time: $event.annotations.results[0].time;
Query log: $event.annotations.results[0].raw_results;",
    },
    {
        SubType: model.GetSubTemplateSubTypeEnum().VOICE,
        Content: "Severity: ${event_severity};
Occurred: ${starts_at};
```

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```
    Resource ID: ${resources};
    Statistical type: by keyword;
    Expression: $event.annotations.condition_expression;
    Current value: $event.annotations.current_value;
    Statistical period: $event.annotations.frequency;",
        },
    }
    descCreateNotificationTemplateRequestBody:= "xxxxxx"
    request.Body = &model.CreateNotificationTemplateRequestBody{
        Templates: listTemplatesbody,
        Locale: model.GetCreateNotificationTemplateRequestBodyLocaleEnum().ZH_CN,
        Source: "LTS",
        Desc: &descCreateNotificationTemplateRequestBody,
        Name: "xxx",
    }
    response, err := client.UpdateNotificationTemplate(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
201	The request is successful.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.11.3 Querying Message Templates

Function

This API is used to query the message template list.

Calling Method

For details, see **Calling APIs**.

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URI

GET /v2/{project_id}/{domain_id}/lts/events/notification/templates

Table 6-503 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**
domain_id	Yes	String	Account ID. For details about how to obtain an account ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**

Request Parameters

Table 6-504 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

Table 6-505 Response body parameters

Parameter	Type	Description
results	Array of **NotificationTemplate** objects	Template array.

Table 6-506 NotificationTemplate

Parameter	Type	Description
name	String	**Definition** Message template name. **Range** N/A

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Parameter	Type	Description
type	Array of strings	**Definition** Notification method. **Range** • **sms** • **dingding** • **wechat** • **webhook** • **email** • **voice** • **feishu** • **welink**
desc	String	**Definition** Message template description. **Range** N/A
source	String	**Definition** Message template source. **Range** N/A
templates	Array of **SubTemplateResBody** objects	**Definition** Details about the message template of different notification channels.
locale	String	**Definition** Message header language. A default header, such as "Dear customer," will be added to the beginning of all messages in the language you select. **Range** • **zh-cn** • **en-us**
create_time	Long	**Definition** Time when the message template was created (timestamp in milliseconds). **Range** N/A

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Parameter	Type	Description
modify_time	Long	**Definition** Time when the message template was last updated (timestamp in milliseconds). **Range** N/A
project_id	String	**Definition** Project ID. **Range** N/A

Table 6-507 SubTemplateResBody

Parameter	Type	Description
sub_type	String	**Definition** Notification channel of the message template. **Range** • **sms** • **dingding** • **wechat** • **webhook** • **email** • **voice** • **feishu** • **welink**

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Parameter	Type	Description
content	String	**Definition** Message template body of the corresponding notification channel. A variable following a dollar sign ($) can only be one of the following variables. The supported variables vary according to alarm rule types (keyword or SQL). Currently, the two alarm rule types have the following common variables: Alarm severity: ${event_severity}; Occurrence time: ${starts_at}; Alarm source: $event.metadata.resource_provider; Resource type: $event.metadata.resource_type; Resource ID: ${resources}; Statistical type: by keyword; Expression: $event.annotations.condition_expression; Current value: $event.annotations.current_value; Statistical period: $event.annotations.frequency; Variables specific to keyword alarms: Query time: $event.annotations.results[0].time; Query log: $event.annotations.results[0].raw_results; Variables specific to SQL alarms: Log group/stream name: $event.annotations.results[0].resource_id; Query statement: $event.annotations.results[0].sql; Query time: $event.annotations.results[0].time; Query URL: $event.annotations.results[0].url; Query log: $event.annotations.results[0].raw_results; Alarm severity: ${event_severity};

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Parameter	Type	Description
		Occurrence time: ${starts_at}; Alarm source: $event.metadata.resource_provider; Resource type: $event.metadata.resource_type; Resource ID: ${resources}; Statistical type: by keyword; Expression: $event.annotations.condition_expression; Current value: $event.annotations.current_value; Statistical period: $event.annotations.frequency; Variables specific to keyword alarms: Query time: $event.annotations.results[0].time; Query log: $event.annotations.results[0].raw_results; Variables specific to SQL alarms: Log group/stream name: $event.annotations.results[0].resource_id; Query statement: $event.annotations.results[0].sql; Query time: $event.annotations.results[0].time; Query URL: $event.annotations.results[0].url; Query log: $event.annotations.results[0].raw_results; **NOTE** Each variable must be followed by an English semicolon (;). Otherwise, the template replacement fails. **Range** N/A

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Parameter	Type	Description
topic	String	**Definition** Email subject. This field is valid when **sub_type** (notification channel) is set to **email**. **Range** N/A
sendType	String	**Definition** Rendering mode of the message. This field is valid only when the message template type is **webhook**. **Range** • **HTML** • **JSON**
version	String	**Definition** Applicable version of the message template. **Range** **v1**: indicates the LTS message template.

Status code: 500

Table 6-508 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Query the message template list.

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```
GET https://{endpoint}/v2/{project_id}/{domain_id}/lts/events/notification/templates

/v2/{project_id}/{domain_id}/lts/events/notification/templates
```

Example Responses

Status code: 200

The request is successful.

```
{
  "results" : [ {
    "create_time" : 1701352010150,
    "desc" : "This is the SMS test mode.",
    "locale" : "zh-cn",
    "modify_time" : 1701352010150,
    "name" : "15nWzUsOHA",
    "project_id" : "2a473356cca5487f8373be891bffc1cf",
    "source" : "LTS",
    "templates" : [ {
      "content" : "\"This is an SMS test template.\"",
      "sub_type" : "sms"
    } ],
    "type" : [ "" ]
  }, {
    "create_time" : 1702021411612,
    "desc" : "This is the SMS test mode.",
    "locale" : "zh-cn",
    "modify_time" : 1702021411612,
    "name" : "RZ2ObeluNN",
    "project_id" : "2a473356cca5487f8373be891bffc1cf",
    "source" : "LTS",
    "templates" : [ {
      "content" : "\"This is an SMS test template.\"",
      "sub_type" : "sms"
    } ],
    "type" : [ "" ]
  } ]
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.2017",
  "error_msg" : "Find Alarm rule failed."
}
```

Status Codes

Status Code	Description
200	The request is successful.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

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6.11.4 Deleting a Message Template

Function

This API is used to delete a notification template.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/{project_id}/{domain_id}/lts/events/notification/templates

Table 6-509 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**
domain_id	Yes	String	Account ID. For details about how to obtain an account ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**

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Request Parameters

Table 6-510 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-511 Request body parameters

Parameter	Mandatory	Type	Description
template_names	Yes	Array of strings	Array of names of templates to be deleted.

Response Parameters

Status code: 204

If the response body is empty, the request is successfully responded.

Status code: 400

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Table 6-512 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-513 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Deleting a message template

```
DELETE https://{endpoint}/v2/{project_id}/{domain_id}/lts/events/notification/templates

/v2/{project_id}/{domain_id}/lts/events/notification/templates
{"template_names":["template1","template2"]}
```

Example Responses

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.2015",
```

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```
  "error_msg" : "delete template name is empty or projectId is null"
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.2015",
  "error_msg" : "Failed to delete notification template."
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Deleting a message template

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class DeleteNotificationTemplateSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteNotificationTemplateRequest request = new DeleteNotificationTemplateRequest();
        request.withDomainId("{domain_id}");
        try {
            DeleteNotificationTemplateResponse response = client.deleteNotificationTemplate(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
```

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```
    }
}
```

Python

Deleting a message template

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteNotificationTemplateRequest()
        request.domain_id = "{domain_id}"
        response = client.delete_notification_template(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Deleting a message template

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
```

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```
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteNotificationTemplateRequest{}
    request.DomainId = "{domain_id}"
    response, err := client.DeleteNotificationTemplate(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
204	If the response body is empty, the request is successfully responded.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.11.5 Querying a Message Template

Function

This API is used to query details about a single message notification template, including its name, content, and creation time. The query provides precise data support for template management.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/{domain_id}/lts/events/notification/template/{template_name}

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Table 6-514 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A
domain_id	Yes	String	**Definition** Account ID. For details about how to obtain it, see **Obtaining an Account ID**. **Constraints** N/A **Range** N/A **Default Value** N/A
template_name	Yes	String	**Definition** Name of the message template to be obtained. **Constraints** N/A **Range** N/A **Default Value** N/A

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Request Parameters

Table 6-515 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints:** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

Table 6-516 Response body parameters

Parameter	Type	Description
name	String	**Definition** Message template name. **Range** N/A

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Parameter	Type	Description
type	Array of strings	**Definition** Notification method. **Range** • **sms** • **dingding** • **wechat** • **webhook** • **email** • **voice** • **feishu** • **welink**
desc	String	**Definition** Message template description. **Range** N/A
source	String	**Definition** Message template source. **Range** N/A
templates	Array of **SubTemplateResBody** objects	**Definition** Details about the message template of different notification channels.
locale	String	**Definition** Message header language. A default header, such as "Dear customer," will be added to the beginning of all messages in the language you select. **Range** • **zh-cn** • **en-us**
create_time	Long	**Definition** Time when the message template was created (timestamp in milliseconds). **Range** N/A

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Parameter	Type	Description
modify_time	Long	**Definition** Time when the message template was last updated (timestamp in milliseconds). **Range** N/A
project_id	String	**Definition** Project ID. **Range** N/A

Table 6-517 SubTemplateResBody

Parameter	Type	Description
sub_type	String	**Definition** Notification channel of the message template. **Range** • **sms** • **dingding** • **wechat** • **webhook** • **email** • **voice** • **feishu** • **welink**

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Parameter	Type	Description
content	String	**Definition** Message template body of the corresponding notification channel. A variable following a dollar sign ($) can only be one of the following variables. The supported variables vary according to alarm rule types (keyword or SQL). Currently, the two alarm rule types have the following common variables: Alarm severity: ${event_severity}; Occurrence time: ${starts_at}; Alarm source: $event.metadata.resource_provider; Resource type: $event.metadata.resource_type; Resource ID: ${resources}; Statistical type: by keyword; Expression: $event.annotations.condition_expression; Current value: $event.annotations.current_value; Statistical period: $event.annotations.frequency; Variables specific to keyword alarms: Query time: $event.annotations.results[0].time; Query log: $event.annotations.results[0].raw_results; Variables specific to SQL alarms: Log group/stream name: $event.annotations.results[0].resource_id; Query statement: $event.annotations.results[0].sql; Query time: $event.annotations.results[0].time; Query URL: $event.annotations.results[0].url; Query log: $event.annotations.results[0].raw_results; Alarm severity: ${event_severity};

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Parameter	Type	Description
		Occurrence time: ${starts_at}; Alarm source: $event.metadata.resource_provider; Resource type: $event.metadata.resource_type; Resource ID: ${resources}; Statistical type: by keyword; Expression: $event.annotations.condition_expression; Current value: $event.annotations.current_value; Statistical period: $event.annotations.frequency; Variables specific to keyword alarms: Query time: $event.annotations.results[0].time; Query log: $event.annotations.results[0].raw_results; Variables specific to SQL alarms: Log group/stream name: $event.annotations.results[0].resource_id; Query statement: $event.annotations.results[0].sql; Query time: $event.annotations.results[0].time; Query URL: $event.annotations.results[0].url; Query log: $event.annotations.results[0].raw_results; **NOTE** Each variable must be followed by an English semicolon (;). Otherwise, the template replacement fails. **Range** N/A

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Parameter	Type	Description
topic	String	**Definition** Email subject. This field is valid when **sub_type** (notification channel) is set to **email**. **Range** N/A
sendType	String	**Definition** Rendering mode of the message. This field is valid only when the message template type is **webhook**. **Range** • **HTML** • **JSON**
version	String	**Definition** Applicable version of the message template. **Range** **v1**: indicates the LTS message template.

Status code: 500

Table 6-518 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Query a message template with a specified name.

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```
GET https://{endpoint}/v2/{project_id}/{domain_id}/lts/events/notification/template/{template_name}

/v2/{project_id}/{domain_id}/lts/events/notification/template/{template_name}
```

Example Responses

Status code: 200

The request is successful.

```
{
  "create_time" : 1702955600631,
  "desc" : "description",
  "locale" : "zh-cn",
  "modify_time" : 1702955600631,
  "name" : "postman-test",
  "project_id" : "2a473356cca5487f8373be891bffc1cf",
  "source" : "LTS",
  "templates" : [ {
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;",
    "sub_type" : "sms"
  }, {
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;",
    "sub_type" : "dingding"
  }, {
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;",
    "sub_type" : "wechat"
  }, {
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;",
    "sub_type" : "webhook"
  }, {
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nAlarm source: $event.metadata.resource_provider;\nResource type: $event.metadata.resource_type;\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;\nQuery time: $event.annotations.results[0].time;\nQuery log: $event.annotations.results[0].raw_results;",
    "sub_type" : "email"
  }, {
    "content" : "Severity: ${event_severity};\nOccurred: ${starts_at};\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;",
    "sub_type" : "voice"
  } ],
  "type" : [ ]
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.2018",
  "error_msg" : "Failed to get notification template."
}
```

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Status Codes

Status Code	Description
200	The request is successful.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.11.6 Previewing the Email Format of a Message Template

Function

This API is used to preview the email format of a notification template.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/{domain_id}/lts/events/notification/templates/view

Table 6-519 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**
domain_id	Yes	String	Account ID. For details about how to obtain an account ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**

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Request Parameters

Table 6-520 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-521 Request body parameters

Parameter	Mandatory	Type	Description
templates	Yes	String	Email template content. Minimum: **2** Maximum: **1024**
language	Yes	String	Language: zh-cn (Chinese), en-us (English) Enumeration values: • **zh-cn** • **en-us**

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Parameter	Mandatory	Type	Description
source	Yes	String	Source. The value can only be LTS. Minimum: **3** Maximum: **3**

Response Parameters

Status code: 200

Table 6-522 Response body parameters

Parameter	Type	Description
template	String	The value is an HTML text and needs to be parsed before being displayed. Minimum: **2** Maximum: **1024**

Example Requests

Previewing the email format of a message template

```
POST https://{endpoint}/v2/{project_id}/{domain_id}/lts/events/notification/templates/view

{
  "templates" : "Alarm severity: ${event_severity};\nOccurrence time: ${starts_at};\nAlarm source: $event.metadata.resource_provider;\nResource type: $event.metadata.resource_type;\nResource ID: ${resources};\nStatistical type: by keyword;\nExpression: $event.annotations.condition_expression;\nCurrent value: $event.annotations.current_value;\nStatistical period: $event.annotations.frequency;\nQuery time: $event.annotations.results[0].time;\nQuery log: $event.annotations.results[0].raw_results;",
  "language" : "zh-cn",
  "source" : "LTS"
}
```

Example Responses

Status code: 200

The request is successful.

```
{
  "template" : "<style>    span {        display: inline-block;        float: left;        font-size: 14px;    }    b {        display: inline-block;        float: left;        color: #252B3A;        font-size: 14px    }</style><table border=\"0\" cellpadding=\"0\" cellspacing=\"0\"        style=\"font-family:HuaweiFont,Helvetica,Arial,PingFangSC-Regular,Hiragino Sans GB;border-spacing:0px 14px;font-size:14px;padding-left: 30px;line-height:25px;\">    <thead>    <tr style=\"font-size:14px;\">        <td colspan=\"2\" style=\"line-height:28px;color:#6e6e6e;font-size:14px\">            <b>Dear </b>            <b>Huawei Cloud user,</b>            <b>  </b>        </td>    </tr>    </thead>    <tr>        <td colspan=\"2\">            <span>Your alarm rules set in the </span>            <b>CN North-Beijing1</b>            <span> region</span>            <b>  </b>            <span>have a new</span>            <span> O&M notification</span>            <span>. For more information, log in to LTS. </span>            <br>            <br>        </td>    </tr>    <tr style=\"font-size:14px;\">        <td colspan=\"2\">            <p style=\"margin-bottom: -20px; margin-top: -26px;\">                <span style=\"color:#252B3A;line-
```

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```
height:24px\">The details are as follows:</span>            </p>        </td>    </tr>    <td><div>Severity:
critical;<br>Occurred: 2022-03-21 18:23:20 GMT+08:00;<br>Alarm source: N/A;<br>Resource type: N/
A;<br>Resource ID: CCE;<br>Statistical type: by keyword;<br>Expression: N/A;<br>Current value: N/
A;<br>Statistical period: N/A;<br>Query time: N/A;<br>Query log: N/A;<br><div/></td>  </table>"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Previewing the email format of a message template

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class ListNotificationTemplateSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running
this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListNotificationTemplateRequest request = new ListNotificationTemplateRequest();
        request.withDomainId("{domain_id}");
        PreviewTemplateBody body = new PreviewTemplateBody();
        body.withSource("LTS");
        body.withLanguage(PreviewTemplateBody.LanguageEnum.fromValue("zh-cn"));
        body.withTemplates("Alarm severity: ${event_severity};
Occurrence time: ${starts_at};
Alarm source: $event.metadata.resource_provider;
Resource type: $event.metadata.resource_type;
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;
Query time: $event.annotations.results[0].time;
Query log: $event.annotations.results[0].raw_results;");
        request.withBody(body);
        try {
            ListNotificationTemplateResponse response = client.listNotificationTemplate(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
```

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```
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Previewing the email format of a message template

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListNotificationTemplateRequest()
        request.domain_id = "{domain_id}"
        request.body = PreviewTemplateBody(
            source="LTS",
            language="zh-cn",
            templates="Alarm severity: ${event_severity};
Occurrence time: ${starts_at};
Alarm source: $event.metadata.resource_provider;
Resource type: $event.metadata.resource_type;
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;
Query time: $event.annotations.results[0].time;
Query log: $event.annotations.results[0].raw_results;"
        )
        response = client.list_notification_template(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

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Go

Previewing the email format of a message template

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListNotificationTemplateRequest{}
    request.DomainId = "{domain_id}"
    request.Body = &model.PreviewTemplateBody{
        Source: "LTS",
        Language: model.GetPreviewTemplateBodyLanguageEnum().ZH_CN,
        Templates: "Alarm severity: ${event_severity};
Occurrence time: ${starts_at};
Alarm source: $event.metadata.resource_provider;
Resource type: $event.metadata.resource_type;
Resource ID: ${resources};
Statistical type: by keyword;
Expression: $event.annotations.condition_expression;
Current value: $event.annotations.current_value;
Statistical period: $event.annotations.frequency;
Query time: $event.annotations.results[0].time;
Query log: $event.annotations.results[0].raw_results;",
    }
    response, err := client.ListNotificationTemplate(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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Status Codes

Status Code	Description
200	The request is successful.

Error Codes

See **Error Codes**.

6.12 SQL Alarm Rules

6.12.1 Creating a SQL Alarm Rule

Function

This API is used to create a SQL alarm rule. Currently, up to 200 keyword and SQL alarm rules can be created for each account.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/lts/alarms/sql-alarm-rule

Table 6-523 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Request Parameters

Table 6-524 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-525 Request body parameters

Parameter	Mandatory	Type	Description
sql_alarm_rule_name	Yes	String	**Definition** SQL alarm rule name. **Constraints** • Use only letters, digits, hyphens (-), and underscores (_). Do not start or end with a hyphen or underscore. • A maximum of 128 characters is allowed. **Range** N/A **Default Value** N/A
is_css_sql	No	Boolean	**Definition** Whether to use the SQL query with the pipe character (|). **Constraints** N/A **Range** • **true**: Search | Analysis alarm rule. • **false**: SQL alarm rule. **Default Value** false
sql_alarm_rule_description	No	String	**Definition** Brief description of a SQL alarm rule. **Constraints** N/A **Range** A maximum of 128 characters is allowed. **Default Value** N/A
sql_requests	Yes	Array of **SqlRequest** objects	**Definition** SQL alarm details. **Constraints** N/A

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Parameter	Mandatory	Type	Description
frequency	Yes	**CreateSqlAlarmRuleFrequency** object	**Definition** SQL alarm query frequency. **Constraints** N/A
condition_expression	Yes	String	**Definition** Condition expression for triggering an alarm. **Constraints** • The value cannot contain only digits. • The value cannot start with a digit. **Range** N/A **Default Value** N/A
sql_alarm_level	Yes	String	**Definition** SQL alarm severity. **Constraints** The value cannot contain only digits or start with a digit. **Range** • **Info** • **Minor** • **Major** • **Critical** **Default Value** N/A
domain_id	Yes	String	**Definition** Account ID. For details about how to obtain it, see **Obtaining an Account ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
trigger_condition_count	No	Integer	**Definition** Alarm triggering condition: number of times the condition is met. It specifies the number of times a specified SQL statement's condition must be met to trigger an alarm. When this count is reached within a specified number of queries, a SQL alarm is triggered. **Constraints** • **trigger_condition_count** and **trigger_condition_frequency** must be configured in conjunction to trigger a SQL alarm. • The number of queries (**trigger_condition_frequency**) must be greater than or equal to the number of times the condition must be met (**trigger_condition_count**). **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
trigger_condition_frequency	No	Integer	**Definition** Alarm triggering condition: number of queries. It refers to the number of queries set in the advanced settings. When the value of **trigger_condition_count** is reached within a specified number of queries, a SQL alarm is triggered. **Constraints** • **trigger_condition_count** and **trigger_condition_frequency** must be configured in conjunction to trigger a SQL alarm. • The number of queries (**trigger_condition_frequency**) must be greater than or equal to the number of times the condition must be met (**trigger_condition_count**). **Range** Minimum value: **1** Maximum value: **10** **Default Value** N/A
whether_recovery_policy	No	Boolean	**Definition** Whether to configure an alarm restoration policy. If this policy is met, an alarm restoration notification is sent. **Constraints** N/A **Range** • **true**: configures an alarm restoration policy. • **false**: does not configure an alarm restoration policy. **Default Value** false

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Parameter	Mandatory	Type	Description
recovery_policy	No	Integer	**Definition** Number of consecutive queries in which the alarm's trigger condition must not be met. If alarm restoration notification is enabled and the trigger condition has not been met for the specified number of last queries, an alarm restoration notification is sent. **Constraints** N/A **Range** • Minimum value: **1** • Maximum value: **10** **Default Value** N/A

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Parameter	Mandatory	Type	Description
notification_frequency	Yes	Integer	**Definition** Alarm notification frequency. The options are immediate, every 5 minutes, every 10 minutes, every 15 minutes, every 30 minutes, every 1 hour, every 3 hours, and every 6 hours. Immediate indicates that a notification is sent once an alarm is generated. Every 10 minutes indicates that the minimum interval between two notifications is 10 minutes, preventing alarm storms. **Constraints** N/A **Range** • *0* • **5** • **10** • **15** • **30** • **60** • **180** • **630** **Default Value** N/A

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Parameter	Mandatory	Type	Description
alarm_action_rule_name	No	String	**Definition** Alarm action rule name. **Constraints** N/A **Range** • Use only letters, digits, hyphens (-), and underscores (_). Do not start or end with a hyphen or underscore. • A maximum of 128 characters is allowed. **Default Value** N/A
tags	No	Array of **tagsRequestBody** objects	**Definition** Alarm tag information. A tag is a key-value pair. Each key is paired with its corresponding value. **Constraints** N/A

Table 6-526 SqlRequest

Parameter	Mandatory	Type	Description
log_stream_id	Yes	String	**Definition** Log stream ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
log_stream_name	No	String	**Definition** Log stream name. If a log group contains more than one log stream, you can select multiple log streams when creating a keyword alarm rule. **Constraints** N/A **Range** • Use only letters, digits, hyphens (-), underscores (_), and periods (.). Do not start with a period or underscore or end with a period. • Enter 1 to 64 characters. **Default Value** N/A
log_group_id	Yes	String	**Definition** Log stream ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A
log_group_name	No	String	**Definition** Log group name. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
sql	Yes	String	**Definition** SQL statement. **Constraints** N/A **Range** N/A **Default Value** N/A
sql_request_title	Yes	String	**Definition** Chart associated with alarms. You can either add a chart directly or import a chart. **Constraints** A maximum of three charts can be added. Each chart cannot be empty, and the SQL query statement in the chart cannot be empty. **Range** N/A **Default Value** N/A
search_time_range	Yes	Integer	**Definition** Time range for querying the latest data when an alarm task is executed. **Constraints** • When **search_time_range_unit** is set to **minute**, the maximum value is 60. • When **search_time_range_unit** is set to **hour**, the maximum value is 24. **Range** Minimum value: **1** Maximum value: **60** **Default Value** **1**

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Parameter	Mandatory	Type	Description
search_time_range_unit	Yes	String	**Definition** Unit of the alarm query time range. **Constraints** N/A **Range** • **minute** • **hour** **Default Value** **minute**

Table 6-527 CreateSqlAlarmRuleFrequency

Parameter	Mandatory	Type	Description
type	Yes	String	**Definition** Query frequency type of alarms. **Constraints** N/A **Range** • **CRON**: cron expression • **HOURLY**: every hour • **DAILY**: every day • **WEEKLY**: every week • **FIXED_RATE**: fixed interval **Default Value** N/A

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Parameter	Mandatory	Type	Description
cron_expr	No	String	**Definition** Cron expression. This parameter is mandatory when **type** is set to **CRON**. Cron expressions use the 24-hour format and are precise down to the minute. Examples: • 0/9 * * * *: The query runs every 9 minutes, starting at the 0th minute of every hour. • 0 18 * * *: The query runs at 18:00:00 every day. **Constraints** N/A **Range** N/A **Default Value** N/A
hour_of_day	No	Integer	**Definition** Every hour of every day. This parameter is mandatory when **type** is set to **DAILY** or **HOURLY**. **Constraints** N/A **Range** **DAILY**: 00:00 to 23:00 **Default Value** N/A
day_of_week	No	Integer	**Definition** Weekly. This parameter is mandatory when **type** is set to **WEEKLY**. **Constraints** N/A **Range** 00:00 to 23:00 on Sunday to Saturday **Default Value** N/A

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Parameter	Mandatory	Type	Description
fixed_rate	No	Integer	**Definition** Fixed interval. This parameter is mandatory when **type** is set to **FIXED_RATE**. **Constraints** N/A **Range** • When **fixed_rate_unit** is set to **minute**, the maximum value is 60. • When **fixed_rate_unit** is set to **hour**, the maximum value is 24. **Default Value** N/A
fixed_rate_unit	No	String	**Definition** Unit of the fixed interval. **Constraints** N/A **Range** • **minute** • **hour** **Default Value** N/A

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Table 6-528 tagsRequestBody

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition** Tag key. **Constraints** • Each tag key must be unique. • A tag is a key-value pair. Each key is paired with its corresponding value. **Range** Each tag key can contain up to 128 characters, including only letters, digits, spaces, and special characters (_.:=+-@). Do not start or end with a space, nor start with *sys*. **Default Value** N/A
value	No	String	**Definition** Tag value. **Constraints** A tag is a key-value pair. Each key is paired with its corresponding value. **Range** • A tag value can contain letters, digits, spaces, and special characters (_.:=+-@). • A tag value can contain up to 255 characters. **Default Value** N/A

Response Parameters

Status code: 200

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Table 6-529 Response body parameters

Parameter	Type	Description
sql_alarm_rule_id	String	**Definition** SQL alarm rule ID. **Range** N/A

Status code: 400

Table 6-530 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-531 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

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Example Requests

Create a SQL alarm rule.

```
POST https://{endpoint}/v2/{project_id}/lts/alarms/sql-alarm-rule

{
  "sql_alarm_rule_name" : "huawei",
  "is_css_sql" : false,
  "sql_alarm_rule_description" : "huawei",
  "sql_requests" : [ {
    "log_stream_id" : "1",
    "log_group_id" : "1",
    "sql" : "select count(*) as t",
    "sql_request_title" : "demo",
    "search_time_range" : 10,
    "search_time_range_unit" : "minute"
  } ],
  "frequency" : {
    "type" : "FIXED_RATE",
    "cron_expr" : "",
    "hour_of_day" : 0,
    "day_of_week" : 0,
    "fixed_rate" : 10,
    "fixed_rate_unit" : "minute"
  },
  "condition_expression" : "t>0",
  "sql_alarm_level" : "Critical",
  "domain_id" : "",
  "notification_frequency" : 30,
  "alarm_action_rule_name" : ""
}
```

Example Responses

Status code: 200

The request is successful.

```
{
  "sql_alarm_rule_id" : ""
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.2005",
  "error_msg" : "Alarm rule params validator error."
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.2001",
  "error_msg" : "Failed to create alarm rule."
}
```

SDK Sample Code

The SDK sample code is as follows.

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Java

Create a SQL alarm rule.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateSqlAlarmRuleSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateSqlAlarmRuleRequest request = new CreateSqlAlarmRuleRequest();
        CreateSqlAlarmRuleRequestBody body = new CreateSqlAlarmRuleRequestBody();
        CreateSqlAlarmRuleFrequency frequencybody = new CreateSqlAlarmRuleFrequency();
        frequencybody.withType(CreateSqlAlarmRuleFrequency.TypeEnum.fromValue("FIXED_RATE"))
            .withCronExpr("")
            .withHourOfDay(0)
            .withDayOfWeek(0)
            .withFixedRate(10)
            .withFixedRateUnit(CreateSqlAlarmRuleFrequency.FixedRateUnitEnum.fromValue("minute"));
        List<SqlRequest> listbodySqlRequests = new ArrayList<>();
        listbodySqlRequests.add(
            new SqlRequest()
                .withLogStreamId("1")
                .withLogGroupId("1")
                .withSql("select count(*) as t")
                .withSqlRequestTitle("demo")
                .withSearchTimeRange(10)
                .withSearchTimeRangeUnit(SqlRequest.SearchTimeRangeUnitEnum.fromValue("minute"))
        );
        body.withAlarmActionRuleName("");

body.withNotificationFrequency(CreateSqlAlarmRuleRequestBody.NotificationFrequencyEnum.NUMBER_30);
        body.withDomainId("");
        body.withSqlAlarmLevel(CreateSqlAlarmRuleRequestBody.SqlAlarmLevelEnum.fromValue("Critical"));
        body.withConditionExpression("t>0");
        body.withFrequency(frequencybody);
        body.withSqlRequests(listbodySqlRequests);
        body.withSqlAlarmRuleDescription("huawei");
        body.withIsCssSql(false);
        body.withSqlAlarmRuleName("huawei");
```

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```
        request.withBody(body);
        try {
            CreateSqlAlarmRuleResponse response = client.createSqlAlarmRule(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Create a SQL alarm rule.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateSqlAlarmRuleRequest()
        frequencybody = CreateSqlAlarmRuleFrequency(
            type="FIXED_RATE",
            cron_expr="",
            hour_of_day=0,
            day_of_week=0,
            fixed_rate=10,
            fixed_rate_unit="minute"
        )
        listSqlRequestsbody = [
            SqlRequest(
                log_stream_id="1",
                log_group_id="1",
                sql="select count(*) as t",
                sql_request_title="demo",
                search_time_range=10,
                search_time_range_unit="minute"
            )
        ]
        request.body = CreateSqlAlarmRuleRequestBody(
            alarm_action_rule_name="",
```

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```
            notification_frequency=30,
            domain_id="",
            sql_alarm_level="Critical",
            condition_expression="t>0",
            frequency=frequencybody,
            sql_requests=listSqlRequestsbody,
            sql_alarm_rule_description="huawei",
            is_css_sql=False,
            sql_alarm_rule_name="huawei"
        )
        response = client.create_sql_alarm_rule(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Create a SQL alarm rule.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateSqlAlarmRuleRequest{}
    cronExprFrequency:= ""
    hourOfDayFrequency:= int32(0)
    dayOfWeekFrequency:= int32(0)
    fixedRateFrequency:= int32(10)
    fixedRateUnitFrequency:= model.GetCreateSqlAlarmRuleFrequencyFixedRateUnitEnum().MINUTE
    frequencybody := &model.CreateSqlAlarmRuleFrequency{
        Type: model.GetCreateSqlAlarmRuleFrequencyTypeEnum().FIXED_RATE,
        CronExpr: &cronExprFrequency,
        HourOfDay: &hourOfDayFrequency,
        DayOfWeek: &dayOfWeekFrequency,
        FixedRate: &fixedRateFrequency,
        FixedRateUnit: &fixedRateUnitFrequency,
    }
    var listSqlRequestsbody = []model.SqlRequest{
```

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```
        {
            LogStreamId: "1",
            LogGroupId: "1",
            Sql: "select count(*) as t",
            SqlRequestTitle: "demo",
            SearchTimeRange: int32(10),
            SearchTimeRangeUnit: model.GetSqlRequestSearchTimeRangeUnitEnum().MINUTE,
        },
    }
    alarmActionRuleNameCreateSqlAlarmRuleRequestBody:= ""
    sqlAlarmRuleDescriptionCreateSqlAlarmRuleRequestBody:= "huawei"
    isCssSqlCreateSqlAlarmRuleRequestBody:= false
    request.Body = &model.CreateSqlAlarmRuleRequestBody{
        AlarmActionRuleName: &alarmActionRuleNameCreateSqlAlarmRuleRequestBody,
        NotificationFrequency: model.GetCreateSqlAlarmRuleRequestBodyNotificationFrequencyEnum().E_30,
        DomainId: "",
        SqlAlarmLevel: model.GetCreateSqlAlarmRuleRequestBodySqlAlarmLevelEnum().CRITICAL,
        ConditionExpression: "t>0",
        Frequency: frequencybody,
        SqlRequests: listSqlRequestsbody,
        SqlAlarmRuleDescription: &sqlAlarmRuleDescriptionCreateSqlAlarmRuleRequestBody,
        IsCssSql: &isCssSqlCreateSqlAlarmRuleRequestBody,
        SqlAlarmRuleName: "huawei",
    }
    response, err := client.CreateSqlAlarmRule(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The request is successful.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.12.2 Modifying a SQL Alarm Rule

Function

This API is used to modify a SQL alarm rule.

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Calling Method

For details, see **Calling APIs**.

URI

PUT /v2/{project_id}/lts/alarms/sql-alarm-rule

Table 6-532 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-533 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-534 Request body parameters

Parameter	Mandatory	Type	Description
sql_alarm_rule_id	Yes	String	**Definition** SQL alarm rule ID. **Constraints** N/A **Range** N/A **Default Value** N/A
sql_alarm_rule_name	Yes	String	**Definition** SQL alarm rule name. **Constraints** • Use only letters, digits, hyphens (-), and underscores (_). Do not start or end with a hyphen or underscore. • A maximum of 128 characters is allowed. **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
alarm_rule_alias	No	String	**Definition** SQL alarm rule alias. **Constraints** • Use only letters, digits, hyphens (-), and underscores (_). Do not start or end with a hyphen or underscore. • A maximum of 128 characters is allowed. **Range** N/A **Default Value** N/A
is_css_sql	No	Boolean	**Definition** Whether to use the SQL query with the pipe character (|). **Constraints** N/A **Range** • **true**: Search | Analysis alarm rule. • **false**: SQL alarm rule. **Default Value** false
sql_alarm_rule_description	No	String	**Definition** Brief description of a SQL alarm rule. **Constraints** N/A **Range** A maximum of 128 characters is allowed. **Default Value** N/A
sql_requests	Yes	Array of **SqlRequest** objects	**Definition** SQL alarm details. **Constraints** N/A

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Parameter	Mandatory	Type	Description
frequency	Yes	**CreateSqlAlarmRuleFrequency** object	**Definition** SQL alarm query frequency. **Constraints** N/A
condition_expression	Yes	String	**Definition** Condition expression for triggering an alarm. **Constraints** • The value cannot contain only digits. • The value cannot start with a digit. **Range** N/A **Default Value** N/A
sql_alarm_level	Yes	String	**Definition** SQL alarm severity. **Constraints** The value cannot contain only digits or start with a digit. **Range** • **Info** • **Minor** • **Major** • **Critical** **Default Value** N/A
domain_id	Yes	String	**Definition** Account ID. For details about how to obtain it, see **Obtaining an Account ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
trigger_condition_count	No	Integer	**Definition** Alarm triggering condition: number of times the condition is met. It specifies the number of times a specified SQL statement's condition must be met to trigger an alarm. When this count is reached within a specified number of queries, a SQL alarm is triggered. **Constraints** • **trigger_condition_count** and **trigger_condition_frequency** must be configured in conjunction to trigger a SQL alarm. • The number of queries (**trigger_condition_frequency**) must be greater than or equal to the number of times the condition must be met (**trigger_condition_count**). **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
trigger_condition_frequency	No	Integer	**Definition** Alarm triggering condition: number of queries. It refers to the number of queries set in the advanced settings. When the value of **trigger_condition_count** is reached within a specified number of queries, a SQL alarm is triggered. **Constraints** • **trigger_condition_count** and **trigger_condition_frequency** must be configured in conjunction to trigger a SQL alarm. • The number of queries (**trigger_condition_frequency**) must be greater than or equal to the number of times the condition must be met (**trigger_condition_count**). **Range** Minimum value: **1** Maximum value: **10** **Default Value** N/A
whether_recovery_policy	No	Boolean	**Definition** Whether to configure an alarm restoration policy. If this policy is met, an alarm restoration notification is sent. **Constraints** N/A **Range** • **true**: configures an alarm restoration policy. • **false**: does not configure an alarm restoration policy. **Default Value** false

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Parameter	Mandatory	Type	Description
recovery_policy	No	Integer	**Definition** Number of consecutive queries in which the alarm's trigger condition must not be met. If alarm restoration notification is enabled and the trigger condition has not been met for the specified number of last queries, an alarm restoration notification is sent. **Constraints** N/A **Range** • Minimum value: **1** • Maximum value: **10** **Default Value** N/A

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Parameter	Mandatory	Type	Description
notification_frequency	Yes	Integer	**Definition** Alarm notification frequency. The options are immediate, every 5 minutes, every 10 minutes, every 15 minutes, every 30 minutes, every 1 hour, every 3 hours, and every 6 hours. Immediate indicates that a notification is sent once an alarm is generated. Every 10 minutes indicates that the minimum interval between two notifications is 10 minutes, preventing alarm storms. **Constraints** N/A **Range** • *0* • **5** • **10** • **15** • **30** • **60** • **180** • **630** **Default Value** N/A

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Parameter	Mandatory	Type	Description
alarm_action_rule_name	No	String	**Definition** Alarm action rule name. **Constraints** N/A **Range** • Use only letters, digits, hyphens (-), and underscores (_). Do not start or end with a hyphen or underscore. • A maximum of 128 characters is allowed. **Default Value** N/A
tags	No	Array of **tagsRequestBody** objects	**Definition** Alarm tag information. A tag is a key-value pair. Each key is paired with its corresponding value. **Constraints** N/A

Table 6-535 SqlRequest

Parameter	Mandatory	Type	Description
log_stream_id	Yes	String	**Definition** Log stream ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
log_stream_name	No	String	**Definition** Log stream name. If a log group contains more than one log stream, you can select multiple log streams when creating a keyword alarm rule. **Constraints** N/A **Range** • Use only letters, digits, hyphens (-), underscores (_), and periods (.). Do not start with a period or underscore or end with a period. • Enter 1 to 64 characters. **Default Value** N/A
log_group_id	Yes	String	**Definition** Log stream ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A
log_group_name	No	String	**Definition** Log group name. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
sql	Yes	String	**Definition** SQL statement. **Constraints** N/A **Range** N/A **Default Value** N/A
sql_request_title	Yes	String	**Definition** Chart associated with alarms. You can either add a chart directly or import a chart. **Constraints** A maximum of three charts can be added. Each chart cannot be empty, and the SQL query statement in the chart cannot be empty. **Range** N/A **Default Value** N/A
search_time_range	Yes	Integer	**Definition** Time range for querying the latest data when an alarm task is executed. **Constraints** • When **search_time_range_unit** is set to **minute**, the maximum value is 60. • When **search_time_range_unit** is set to **hour**, the maximum value is 24. **Range** Minimum value: **1** Maximum value: **60** **Default Value** **1**

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Parameter	Mandatory	Type	Description
search_time_range_unit	Yes	String	**Definition** Unit of the alarm query time range. **Constraints** N/A **Range** • **minute** • **hour** **Default Value** **minute**

Table 6-536 CreateSqlAlarmRuleFrequency

Parameter	Mandatory	Type	Description
type	Yes	String	**Definition** Query frequency type of alarms. **Constraints** N/A **Range** • **CRON**: cron expression • **HOURLY**: every hour • **DAILY**: every day • **WEEKLY**: every week • **FIXED_RATE**: fixed interval **Default Value** N/A

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Parameter	Mandatory	Type	Description
cron_expr	No	String	**Definition** Cron expression. This parameter is mandatory when **type** is set to **CRON**. Cron expressions use the 24-hour format and are precise down to the minute. Examples: • 0/9 * * * *: The query runs every 9 minutes, starting at the 0th minute of every hour. • 0 18 * * *: The query runs at 18:00:00 every day. **Constraints** N/A **Range** N/A **Default Value** N/A
hour_of_day	No	Integer	**Definition** Every hour of every day. This parameter is mandatory when **type** is set to **DAILY** or **HOURLY**. **Constraints** N/A **Range** **DAILY**: 00:00 to 23:00 **Default Value** N/A
day_of_week	No	Integer	**Definition** Weekly. This parameter is mandatory when **type** is set to **WEEKLY**. **Constraints** N/A **Range** 00:00 to 23:00 on Sunday to Saturday **Default Value** N/A

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Parameter	Mandatory	Type	Description
fixed_rate	No	Integer	**Definition** Fixed interval. This parameter is mandatory when **type** is set to **FIXED_RATE**. **Constraints** N/A **Range** • When **fixed_rate_unit** is set to **minute**, the maximum value is 60. • When **fixed_rate_unit** is set to **hour**, the maximum value is 24. **Default Value** N/A
fixed_rate_unit	No	String	**Definition** Unit of the fixed interval. **Constraints** N/A **Range** • **minute** • **hour** **Default Value** N/A

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Table 6-537 tagsRequestBody

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition** Tag key. **Constraints** • Each tag key must be unique. • A tag is a key-value pair. Each key is paired with its corresponding value. **Range** Each tag key can contain up to 128 characters, including only letters, digits, spaces, and special characters (_.:=+-@). Do not start or end with a space, nor start with *sys*. **Default Value** N/A
value	No	String	**Definition** Tag value. **Constraints** A tag is a key-value pair. Each key is paired with its corresponding value. **Range** • A tag value can contain letters, digits, spaces, and special characters (_.:=+-@). • A tag value can contain up to 255 characters. **Default Value** N/A

Response Parameters

Status code: 200

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Table 6-538 Response body parameters

Parameter	Type	Description
sql_alarm_rule_name	String	**Definition** Original name of the SQL alarm rule. **Range** N/A
alarm_rule_alias	String	**Definition** SQL alarm rule alias. **Range** N/A
is_css_sql	Boolean	**Definition** Whether to use the SQL query with the pipe character (|). **Range** N/A
projectId	String	**Definition** Project ID. **Range** N/A
sql_alarm_rule_id	String	**Definition** SQL alarm rule ID. **Range** N/A
sql_alarm_rule_description	String	**Definition** SQL alarm rule description. **Range** N/A
sql_requests	Array of **SqlRequestResponse** objects	**Definition** SQL details.
frequency	**FrequencyRespBody** object	**Definition** Query frequency of alarms.
condition_expression	String	**Definition** Alarm triggering condition expression. **Range** N/A

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Parameter	Type	Description
sql_alarm_level	String	**Definition** Alarm severity. **Range** • **Info** • **Minor** • **Major** • **Critical**
sql_alarm_send	Boolean	**Definition** Whether to send an alarm. **Range** • **0**: no change • **1**: addition • **2**: modification • **3**: deletion
domain_id	String	**Definition** Account ID. **Range** N/A
trigger_condition_count	Integer	**Definition** Alarm triggering condition: number of times the condition is met. It specifies the number of times a specified SQL statement's condition must be met to trigger an alarm. **Range** N/A
trigger_condition_frequency	Integer	**Definition** Triggering condition: number of queries to be evaluated for an alarm. **Range** N/A
whether_recovery_policy	Boolean	**Definition** Whether to send notifications when an alarm is restored. **Range** • **true**: configures an alarm restoration policy. • **false**: does not configure an alarm restoration policy.

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Parameter	Type	Description
recovery_policy	Integer	**Definition** Number of consecutive queries in which an alarm's trigger condition must not be met for the alarm to be considered restored. **Range** N/A
notification_frequency	Integer	**Definition** Alarm notification frequency. The options are immediate, every 5 minutes, every 10 minutes, every 15 minutes, every 30 minutes, every 1 hour, every 3 hours, and every 6 hours. Immediate indicates that a notification is sent once an alarm is generated. Every 10 minutes indicates that the minimum interval between two notifications is 10 minutes, preventing alarm storms. **Range** N/A
alarm_action_rule_name	String	**Definition** Alarm action rule name. **Range** N/A
tags	Array of **tagsResBody** objects	**Definition** Alarm tag information. A tag is a key-value pair. Each key is paired with its corresponding value.

Table 6-539 SqlRequestResponse

Parameter	Type	Description
log_stream_id	String	**Definition** Log stream ID. **Range** N/A

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Parameter	Type	Description
log_stream_name	String	**Definition** Log stream name. **Range** N/A
log_group_id	String	**Definition** Log stream ID. **Range** N/A
log_group_name	String	**Definition** Log group name. **Range** N/A
sql	String	**Definition** SQL statement. **Range** N/A
sql_request_title	String	**Definition** Chart associated with alarms. **Range** N/A
search_time_range	Integer	**Definition** Time range for querying the latest data when an alarm task is executed. **Range** N/A
search_time_range_unit	String	**Definition** Unit of the alarm query time range. **Range** • **minute** • **hour**

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Table 6-540 FrequencyRespBody

Parameter	Type	Description
type	String	**Definition** Query frequency type of alarms. **Range** • **CRON**: cron expression • **HOURLY**: every hour • **DAILY**: every day • **WEEKLY**: every week • **FIXED_RATE**: fixed interval
cron_expr	String	**Definition** Cron expression. This parameter is returned when **type** is set to **CRON**. Cron expressions use the 24-hour format and are precise down to the minute. **Range** N/A
hour_of_day	Integer	**Definition** Every hour of every day. This parameter is returned when **type** is set to **DAILY** or **HOURLY**. **Range** N/A
day_of_week	Integer	**Definition** Weekly. This parameter is returned when **type** is set to **WEEKLY**. **Range** N/A
fixed_rate	Integer	**Definition** Fixed interval. This parameter is returned when **type** is set to **FIXED_RATE**. **Range** N/A
fixed_rate_unit	String	**Definition** Unit of the fixed interval. **Range** • **minute** • **hour**

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Table 6-541 tagsResBody

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

Status code: 400

Table 6-542 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-543 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Modify a SQL alarm rule.

```
PUT https://{endpoint}/v2/{project_id}/lts/alarms/sql-alarm-rule

{
  "sql_alarm_rule_id" : "",
  "sql_alarm_rule_name" : "huawei",
  "is_css_sql" : false,
  "alarm_rule_alias" : "zhangsan",
  "sql_alarm_rule_description" : "huawei",
  "sql_requests" : [ {
    "log_stream_id" : "1",
    "log_group_id" : "1",
    "sql" : "select count(*) as t",
    "sql_request_title" : "demo",
    "search_time_range" : 10,
    "search_time_range_unit" : "minute"
  } ],
  "frequency" : {
    "type" : "FIXED_RATE",
    "cron_expr" : "",
    "hour_of_day" : 0,
    "day_of_week" : 0,
    "fixed_rate" : 10,
    "fixed_rate_unit" : "minute"
  },
  "condition_expression" : "t>0",
  "sql_alarm_level" : "Critical",
  "sql_alarm_send" : true,
  "sql_alarm_send_code" : 0,
  "domain_id" : "",
  "notification_frequency" : 5,
  "alarm_action_rule_name" : ""
}
```

Example Responses

Status code: 200

The request is successful.

```
{
  "sql_alarm_rule_id" : "",
  "sql_alarm_rule_name" : "huawei",
  "alarm_rule_alias" : "zhangsan",
  "is_css_sql" : false,
  "sql_alarm_rule_description" : "huawei",
  "sql_requests" : [ {
    "log_stream_id" : "1",
    "log_stream_name" : "huawei",
    "log_group_name" : "huawei",
    "log_group_id" : "1",
    "sql" : "select count(*) as t",
```

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```
    "sql_request_title" : "demo",
    "search_time_range" : 10,
    "search_time_range_unit" : "minute"
  } ],
  "frequency" : {
    "type" : "FIXED_RATE",
    "cron_expr" : "",
    "hour_of_day" : 0,
    "day_of_week" : 0,
    "fixed_rate" : 10,
    "fixed_rate_unit" : "minute"
  },
  "condition_expression" : "t>0",
  "sql_alarm_level" : "Critical",
  "sql_alarm_send" : true,
  "domain_id" : "",
  "notification_frequency" : 5,
  "alarm_action_rule_name" : ""
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.2005",
  "error_msg" : "Alarm rule params validator error."
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.2003",
  "error_msg" : "Failed to update alarm rule."
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Modify a SQL alarm rule.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class UpdateSqlAlarmRuleSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
```

```
        // In this example, AK and SK are stored in environment variables for authentication. Before running
this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateSqlAlarmRuleRequest request = new UpdateSqlAlarmRuleRequest();
        UpdateSqlAlarmRuleRequestBody body = new UpdateSqlAlarmRuleRequestBody();
        CreateSqlAlarmRuleFrequency frequencybody = new CreateSqlAlarmRuleFrequency();
        frequencybody.withType(CreateSqlAlarmRuleFrequency.TypeEnum.fromValue("FIXED_RATE"))
            .withCronExpr("")
            .withHourOfDay(0)
            .withDayOfWeek(0)
            .withFixedRate(10)
            .withFixedRateUnit(CreateSqlAlarmRuleFrequency.FixedRateUnitEnum.fromValue("minute"));
        List<SqlRequest> listbodySqlRequests = new ArrayList<>();
        listbodySqlRequests.add(
            new SqlRequest()
                .withLogStreamId("1")
                .withLogGroupId("1")
                .withSql("select count(*) as t")
                .withSqlRequestTitle("demo")
                .withSearchTimeRange(10)
                .withSearchTimeRangeUnit(SqlRequest.SearchTimeRangeUnitEnum.fromValue("minute"))
        );
        body.withAlarmActionRuleName("");

body.withNotificationFrequency(UpdateSqlAlarmRuleRequestBody.NotificationFrequencyEnum.NUMBER_5);
        body.withDomainId("");
        body.withSqlAlarmSendCode(UpdateSqlAlarmRuleRequestBody.SqlAlarmSendCodeEnum.NUMBER_0);
        body.withSqlAlarmSend(true);
        body.withSqlAlarmLevel(UpdateSqlAlarmRuleRequestBody.SqlAlarmLevelEnum.fromValue("Critical"));
        body.withConditionExpression("t>0");
        body.withFrequency(frequencybody);
        body.withSqlRequests(listbodySqlRequests);
        body.withSqlAlarmRuleDescription("huawei");
        body.withIsCssSql(false);
        body.withAlarmRuleAlias("zhangsan");
        body.withSqlAlarmRuleName("huawei");
        body.withSqlAlarmRuleId("");
        request.withBody(body);
        try {
            UpdateSqlAlarmRuleResponse response = client.updateSqlAlarmRule(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

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Python

Modify a SQL alarm rule.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateSqlAlarmRuleRequest()
        frequencybody = CreateSqlAlarmRuleFrequency(
            type="FIXED_RATE",
            cron_expr="",
            hour_of_day=0,
            day_of_week=0,
            fixed_rate=10,
            fixed_rate_unit="minute"
        )
        listSqlRequestsbody = [
            SqlRequest(
                log_stream_id="1",
                log_group_id="1",
                sql="select count(*) as t",
                sql_request_title="demo",
                search_time_range=10,
                search_time_range_unit="minute"
            )
        ]
        request.body = UpdateSqlAlarmRuleRequestBody(
            alarm_action_rule_name="",
            notification_frequency=5,
            domain_id="",
            sql_alarm_send_code=0,
            sql_alarm_send=True,
            sql_alarm_level="Critical",
            condition_expression="t>0",
            frequency=frequencybody,
            sql_requests=listSqlRequestsbody,
            sql_alarm_rule_description="huawei",
            is_css_sql=False,
            alarm_rule_alias="zhangsan",
            sql_alarm_rule_name="huawei",
            sql_alarm_rule_id=""
        )
        response = client.update_sql_alarm_rule(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
```

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```
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Modify a SQL alarm rule.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateSqlAlarmRuleRequest{}
    cronExprFrequency:= ""
    hourOfDayFrequency:= int32(0)
    dayOfWeekFrequency:= int32(0)
    fixedRateFrequency:= int32(10)
    fixedRateUnitFrequency:= model.GetCreateSqlAlarmRuleFrequencyFixedRateUnitEnum().MINUTE
    frequencybody := &model.CreateSqlAlarmRuleFrequency{
        Type: model.GetCreateSqlAlarmRuleFrequencyTypeEnum().FIXED_RATE,
        CronExpr: &cronExprFrequency,
        HourOfDay: &hourOfDayFrequency,
        DayOfWeek: &dayOfWeekFrequency,
        FixedRate: &fixedRateFrequency,
        FixedRateUnit: &fixedRateUnitFrequency,
    }
    var listSqlRequestsbody = []model.SqlRequest{
        {
            LogStreamId: "1",
            LogGroupId: "1",
            Sql: "select count(*) as t",
            SqlRequestTitle: "demo",
            SearchTimeRange: int32(10),
            SearchTimeRangeUnit: model.GetSqlRequestSearchTimeRangeUnitEnum().MINUTE,
        },
    }
    alarmActionRuleNameUpdateSqlAlarmRuleRequestBody:= ""
    sqlAlarmRuleDescriptionUpdateSqlAlarmRuleRequestBody:= "huawei"
    isCssSqlUpdateSqlAlarmRuleRequestBody:= false
    alarmRuleAliasUpdateSqlAlarmRuleRequestBody:= "zhangsan"
    request.Body = &model.UpdateSqlAlarmRuleRequestBody{
```

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```
        AlarmActionRuleName: &alarmActionRuleNameUpdateSqlAlarmRuleRequestBody,
        NotificationFrequency: model.GetUpdateSqlAlarmRuleRequestBodyNotificationFrequencyEnum().E_5,
        DomainId: "",
        SqlAlarmSendCode: model.GetUpdateSqlAlarmRuleRequestBodySqlAlarmSendCodeEnum().E_0,
        SqlAlarmSend: true,
        SqlAlarmLevel: model.GetUpdateSqlAlarmRuleRequestBodySqlAlarmLevelEnum().CRITICAL,
        ConditionExpression: "t>0",
        Frequency: frequencybody,
        SqlRequests: listSqlRequestsbody,
        SqlAlarmRuleDescription: &sqlAlarmRuleDescriptionUpdateSqlAlarmRuleRequestBody,
        IsCssSql: &isCssSqlUpdateSqlAlarmRuleRequestBody,
        AlarmRuleAlias: &alarmRuleAliasUpdateSqlAlarmRuleRequestBody,
        SqlAlarmRuleName: "huawei",
        SqlAlarmRuleId: "",
    }
    response, err := client.UpdateSqlAlarmRule(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The request is successful.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.12.3 Querying SQL Alarm Rules

Function

This API is used to query a SQL alarm.

Calling Method

For details, see **Calling APIs**.

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URI

GET /v2/{project_id}/lts/alarms/sql-alarm-rule

Table 6-544 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-545 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

Table 6-546 Response body parameters

Parameter	Type	Description
sql_alarm_rules	Array of **SqlAlarmRuleRespList** objects	**Definition** SQL alarm rule information.

Table 6-547 SqlAlarmRuleRespList

Parameter	Type	Description
sql_alarm_rule_name	String	**Definition** SQL alarm rule name. **Range** N/A
is_css_sql	Boolean	**Definition** Whether to use the SQL query with the pipe character (|). **Range** • **true**: Search | Analysis alarm rule. • **false**: SQL alarm rule.

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Parameter	Type	Description
sql_alarm_rule_id	String	**Definition** SQL alarm rule ID. **Range** N/A
sql_alarm_rule_description	String	**Definition** Brief description of a SQL alarm rule. **Range** N/A
sql_requests	Array of **SqlRequestResponse** objects	**Definition** SQL alarm rule information.
frequency	**FrequencyRespBody** object	**Definition** SQL alarm query frequency.
condition_expression	String	**Definition** Condition expression for triggering an alarm. **Range** N/A
topics	Array of **Topics** objects	**Definition** SMN topic information.
sql_alarm_level	String	**Definition** Alarm severity. **Range** • **Info** • **Minor** • **Major** • **Critical**
domain_id	String	**Definition** Account ID. **Range** N/A
create_time	Long	**Definition** Time when the SQL alarm rule was created (timestamp in milliseconds). **Range** N/A

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Parameter	Type	Description
update_time	Long	**Definition** Time when the SQL alarm rule was modified (timestamp in milliseconds). **Range** N/A
template_name	String	**Definition** Message template name. **Range** N/A
status	String	**Definition** Alarm status. **Range** • Triggered • Restored
trigger_condition_count	Integer	**Definition** Alarm triggering condition: number of times the condition is met. It specifies the number of times a specified SQL statement's condition must be met to trigger an alarm. **Range** N/A
trigger_condition_frequency	Integer	**Definition** Alarm triggering condition: number of queries. It refers to the number of queries set in the advanced settings. **Range** N/A
whether_recovery_policy	Boolean	**Definition** Whether to configure an alarm restoration policy. If this policy is met, an alarm restoration notification is sent. **Range** • **true**: configures an alarm restoration policy. • **false**: does not configure an alarm restoration policy.

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Parameter	Type	Description
recovery_policy	Integer	**Definition** Number of consecutive queries in which the alarm's trigger condition must not be met. **Range** N/A
notification_frequency	Integer	**Definition** Alarm notification frequency. **Range** • *0* • **5** • **10** • **15** • **30** • **60** • **180** • **630**
alarm_action_rule_name	String	**Definition** Alarm action rule name. **Range** N/A
tags	Array of **tagsResBody** objects	**Definition** Alarm tag information.

Table 6-548 SqlRequestResponse

Parameter	Type	Description
log_stream_id	String	**Definition** Log stream ID. **Range** N/A
log_stream_name	String	**Definition** Log stream name. **Range** N/A

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Parameter	Type	Description
log_group_id	String	**Definition** Log stream ID. **Range** N/A
log_group_name	String	**Definition** Log group name. **Range** N/A
sql	String	**Definition** SQL statement. **Range** N/A
sql_request_title	String	**Definition** Chart associated with alarms. **Range** N/A
search_time_range	Integer	**Definition** Time range for querying the latest data when an alarm task is executed. **Range** N/A
search_time_range_unit	String	**Definition** Unit of the alarm query time range. **Range** • **minute** • **hour**

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Table 6-549 FrequencyRespBody

Parameter	Type	Description
type	String	**Definition** Query frequency type of alarms. **Range** • **CRON**: cron expression • **HOURLY**: every hour • **DAILY**: every day • **WEEKLY**: every week • **FIXED_RATE**: fixed interval
cron_expr	String	**Definition** Cron expression. This parameter is returned when **type** is set to **CRON**. Cron expressions use the 24-hour format and are precise down to the minute. **Range** N/A
hour_of_day	Integer	**Definition** Every hour of every day. This parameter is returned when **type** is set to **DAILY** or **HOURLY**. **Range** N/A
day_of_week	Integer	**Definition** Weekly. This parameter is returned when **type** is set to **WEEKLY**. **Range** N/A
fixed_rate	Integer	**Definition** Fixed interval. This parameter is returned when **type** is set to **FIXED_RATE**. **Range** N/A
fixed_rate_unit	String	**Definition** Unit of the fixed interval. **Range** • **minute** • **hour**

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Table 6-550 Topics

Parameter	Type	Description
name	String	**Definition** SMN topic name. **Range** N/A
topic_urn	String	**Definition** Unique resource ID of the SMN topic. **Range** N/A
display_name	String	**Definition** Sender name displayed in an email. **Range** N/A
push_policy	Integer	**Definition** Message push policy. Currently, this attribute is not modifiable. Support for modifying this setting will be added in a future update. **Range** • **0**: Failed messages will be retained in the failure queue. • **1**: Failed messages will be discarded.

Table 6-551 tagsResBody

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

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Status code: 500

Table 6-552 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Query SQL alarm rules.

```
GET https://{endpoint}/v2/{project_id}/lts/alarms/sql-alarm-rule

/v2/{project_id}/lts/alarms/sql-alarm-rule
```

Example Responses

Status code: 200

The request is successful.

```
{
  "sql_alarm_rules" : [ {
    "sql_alarm_rule_name" : "string",
    "is_css_sql" : false,
    "sql_alarm_rule_id" : "string",
    "sql_alarm_rule_description" : "string",
    "sql_requests" : [ {
      "log_stream_id" : "string",
      "log_stream_name" : "string",
      "log_group_id" : "string",
      "log_group_name" : "string",
      "sql" : "string",
      "sql_request_title" : "string",
      "search_time_range" : 0,
      "search_time_range_unit" : "minute"
    } ],
    "frequency" : {
      "type" : "CRON",
      "cron_expr" : "string",
      "hour_of_day" : 0,
      "day_of_week" : 0,
      "fixed_rate" : 0,
      "fixed_rate_unit" : "minute"
    },
    "condition_expression" : "string",
    "sql_alarm_level" : "Info",
    "domain_id" : "string",
```

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```
    "create_time" : 0,
    "update_time" : 0,
    "template_name" : "Message template name.",
    "status" : "RUNNING",
    "trigger_condition_count" : "1",
    "trigger_condition_frequency" : "1",
    "whether_recovery_policy" : false,
    "recovery_policy" : "3",
    "notification_frequency" : 5,
    "alarm_action_rule_name" : ""
  } ]
}
```


Status code: 500

The server has received the request but encountered an internal error.


```
{
  "error_code" : "LTS.2008",
  "error_msg" : "Find Alarm rule failed."
}
```


Status Codes

Status Code	Description
200	The request is successful.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.12.4 Deleting a SQL Alarm Rule

Function

This API is used to delete a SQL alarm rule.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/{project_id}/lts/alarms/sql-alarm-rule/{sql_alarm_rule_id}

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Table 6-553 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A
sql_alarm_rule_id	Yes	String	**Definition** SQL alarm rule ID. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-554 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

The request is successful.

Status code: 500

Table 6-555 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Delete a SQL alarm rule based on its ID.

```
POST https://{endpoint}/v2/{project_id}/lts/alarms/sql-alarm-rule/{sql_alarm_rule_id}

/v2/{project_id}/lts/alarms/sql-alarm-rule/{sql_alarm_rule_id}
```

Example Responses

Status code: 500

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The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.2002",
  "error_msg" : "Failed to delete alarm rule."
}
```

Status Codes

Status Code	Description
200	The request is successful.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.12.5 Switching the Alarm Rule Status

Function

This API is used to start or stop an alarm rule.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v2/{project_id}/lts/alarms/status

Table 6-556 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**

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Request Parameters

Table 6-557 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-558 Request body parameters

Parameter	Mandatory	Type	Description
alarm_rule_id	Yes	String	Alarm rule ID. Minimum: **1** Maximum: **100**
type	Yes	String	Alarm rule types can be **sql** or **keywords**. Minimum: **1** Maximum: **100**

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Parameter	Mandatory	Type	Description
status	Yes	String	RUNNING enables the alarm rule, and STOPPING disables the alarm rule. Minimum: **1** Maximum: **100** Enumeration values: • **RUNNING** • **STOPPING**

Response Parameters

Status code: 200

The request is successful.

Status code: 401

Table 6-559 Response body parameters

Parameter	Type	Description
error_code	String	Error code example. Minimum: **10** Maximum: **10**
error_msg	String	Error message. Minimum: **1** Maximum: **1000**

Status code: 500

Table 6-560 Response body parameters

Parameter	Type	Description
error_code	String	Error code example. Minimum: **10** Maximum: **10**
error_msg	String	Error message. Minimum: **1** Maximum: **1000**

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Example Requests

- Enable an alarm rule with a specified alarm rule ID. The value of type is sql, and the value of status is RUNNING.

```
PUT https://{endpoint}/v2/{project_id}/lts/alarms/status

{
  "alarm_rule_id" : "ABCDEFG",
  "type" : "sql",
  "status" : "RUNNING"
}
```

- The value of type is keywords, and the value of status is STOPPING.

```
PUT https://{endpoint}/v2/{project_id}/lts/alarms/status

{
  "alarm_rule_id" : "ABCDEFG",
  "type" : "keywords",
  "status" : "STOPPING"
}
```

Example Responses

Status code: 401

Failed to verify the project ID.

```
{
  "error_code" : "LTS.0001",
  "error_msg" : "Project verify error."
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.2021",
  "error_msg" : "Failed to update alarm rule status."
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

- Enable an alarm rule with a specified alarm rule ID. The value of type is sql, and the value of status is RUNNING.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class UpdateAlarmRuleStatusSolution {

    public static void main(String[] args) {
```

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```
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateAlarmRuleStatusRequest request = new UpdateAlarmRuleStatusRequest();
        ChangeAlarmRuleStatus body = new ChangeAlarmRuleStatus();
        body.withType("sql");
        body.withStatus("RUNNING");
        body.withAlarmRuleId("ABCDEFG");
        request.withBody(body);
        try {
            UpdateAlarmRuleStatusResponse response = client.updateAlarmRuleStatus(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

- The value of type is keywords, and the value of status is STOPPING.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class UpdateAlarmRuleStatusSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
```

```
            .withAk(ak)
            .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
            .withCredential(auth)
            .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
            .build();
        UpdateAlarmRuleStatusRequest request = new UpdateAlarmRuleStatusRequest();
        ChangeAlarmRuleStatus body = new ChangeAlarmRuleStatus();
        body.withType("keywords");
        body.withStatus("STOPPING");
        body.withAlarmRuleId("ABCDEFG");
        request.withBody(body);
        try {
            UpdateAlarmRuleStatusResponse response = client.updateAlarmRuleStatus(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

- Enable an alarm rule with a specified alarm rule ID. The value of type is sql, and the value of status is RUNNING.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateAlarmRuleStatusRequest()
        request.body = ChangeAlarmRuleStatus(
            type="sql",
            status="RUNNING",
            alarm_rule_id="ABCDEFG"
        )
        response = client.update_alarm_rule_status(request)
```

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```
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

- The value of type is keywords, and the value of status is STOPPING.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateAlarmRuleStatusRequest()
        request.body = ChangeAlarmRuleStatus(
            type="keywords",
            status="STOPPING",
            alarm_rule_id="ABCDEFG"
        )
        response = client.update_alarm_rule_status(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

- Enable an alarm rule with a specified alarm rule ID. The value of type is sql, and the value of status is RUNNING.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
```

```
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateAlarmRuleStatusRequest{}
    request.Body = &model.ChangeAlarmRuleStatus{
        Type: "sql",
        Status: "RUNNING",
        AlarmRuleId: "ABCDEFG",
    }
    response, err := client.UpdateAlarmRuleStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

- The value of type is keywords, and the value of status is STOPPING.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great
security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or
environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before
running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local
environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateAlarmRuleStatusRequest{}
    request.Body = &model.ChangeAlarmRuleStatus{
        Type: "keywords",
        Status: "STOPPING",
```

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```
        AlarmRuleId: "ABCDEFG",
    }
    response, err := client.UpdateAlarmRuleStatus(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The request is successful.
401	Failed to verify the project ID.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.13 Keyword Alarm Rules

6.13.1 Creating a Keyword Alarm Rule

Function

This API is used to create a keyword alarm. Currently, each account can create a maximum of 200 keyword alarms and SQL alarms.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/lts/alarms/keywords-alarm-rule

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Table 6-561 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-562 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-563 Request body parameters

Parameter	Mandatory	Type	Description
keywords_alarm_rule_name	Yes	String	**Definition** Keyword alarm rule name. **Constraints** You can modify the current rule name, but cannot modify the original rule name (defined during rule creation). **Range** • Use only letters, digits, hyphens (-), and underscores (_). Do not start or end with a hyphen or underscore. • A maximum of 128 characters is allowed. **Default Value** N/A
keywords_alarm_rule_description	No	String	**Definition** Brief description of a keyword alarm rule. **Constraints** N/A **Range** A maximum of 128 characters is allowed. **Default Value** N/A
keywords_requests	Yes	Array of **KeywordsRequest** objects	**Definition** Keyword alarm rule information. **Constraints** N/A
frequency	Yes	**Frequency** object	**Definition** Keyword alarm query frequency. **Constraints** N/A

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Parameter	Mandatory	Type	Description
keywords_alarm_level	Yes	String	**Definition** Keyword alarm severity. **Constraints** N/A **Range** • **Info** • **Minor** • **Major** • **Critical** **Default Value** N/A
domain_id	Yes	String	**Definition** Account ID. For details about how to obtain it, see **Obtaining an Account ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
trigger_condition_count	No	Integer	**Definition** Alarm triggering condition: number of times the condition is met. It specifies the number of times a configured keyword must appear to trigger an alarm. When this count is reached within a specified number of queries, a keyword alarm is triggered. **Constraints** • **trigger_condition_count** and **trigger_condition_frequency** must be configured in conjunction to trigger a keyword alarm. • The number of queries (**trigger_condition_frequency**) must be greater than or equal to the number of times the condition must be met (**trigger_condition_count**). **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
trigger_condition_frequency	No	Integer	**Definition** Alarm triggering condition: number of queries. It refers to the number of queries set in the advanced settings. When the value of **trigger_condition_count** is reached within a specified number of queries, a keyword alarm is triggered. **Constraints** • **trigger_condition_count** and **trigger_condition_frequency** must be configured in conjunction to trigger a keyword alarm. • The number of queries (**trigger_condition_frequency**) must be greater than or equal to the number of times the condition must be met (**trigger_condition_count**). **Range** Minimum value: **1** Maximum value: **10** **Default Value** N/A
whether_recovery_policy	No	Boolean	**Definition** Whether to configure an alarm restoration policy. If this policy is met, an alarm restoration notification is sent. **Constraints** N/A **Range** • **true**: configures an alarm restoration policy. • **false**: does not configure an alarm restoration policy. **Default Value** false

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Parameter	Mandatory	Type	Description
recovery_policy	No	Integer	**Definition** Number of consecutive queries in which the alarm's trigger condition must not be met. If alarm restoration notification is enabled and the trigger condition has not been met for the specified number of last queries, an alarm restoration notification is sent. **Constraints** N/A **Range** • Minimum value: **1** • Maximum value: **10** **Default Value** N/A

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Parameter	Mandatory	Type	Description
notification_frequency	Yes	Integer	**Definition** Alarm notification frequency. The options are immediate, every 5 minutes, every 10 minutes, every 15 minutes, every 30 minutes, every 1 hour, every 3 hours, and every 6 hours. Immediate indicates that a notification is sent once an alarm is generated. Every 10 minutes indicates that the minimum interval between two notifications is 10 minutes, preventing alarm storms. **Constraints** N/A **Range** • *0* • **5** • **10** • **15** • **30** • **60** • **180** • **630** **Default Value** N/A

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Parameter	Mandatory	Type	Description
alarm_action_rule_name	No	String	**Definition** Alarm action rule name. **Constraints** N/A **Range** • Use only letters, digits, hyphens (-), and underscores (_). Do not start or end with a hyphen or underscore. • A maximum of 128 characters is allowed. **Default Value** N/A
tags	No	Array of **tagsRequestBody** objects	**Definition** Alarm tag information. A tag is a key-value pair. Each key is paired with its corresponding value. **Constraints** N/A

Table 6-564 KeywordsRequest

Parameter	Mandatory	Type	Description
log_stream_id	Yes	String	**Definition** Log stream ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
log_stream_name	No	String	**Definition** Log stream name. If a log group contains more than one log stream, you can select multiple log streams when creating a keyword alarm rule. **Constraints** • Use only letters, digits, hyphens (-), underscores (_), and periods (.). Do not start with a period or underscore or end with a period. • Enter 1 to 64 characters. **Range** N/A **Default Value** N/A
log_group_id	Yes	String	**Definition** Log stream ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A
log_group_name	No	String	**Definition** Log group name. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
keywords	Yes	String	**Definition** Keyword that can be found in logs. Exact and fuzzy matches are supported. Enter up to 1,024 characters. For details about how to set keyword search, see **Using Search Syntax**. **Constraints** N/A **Range** A maximum of 1,024 characters is allowed. **Default Value** N/A
condition	Yes	String	**Definition** Trigger condition. When the condition is met, an alarm is triggered. **Constraints** N/A **Range** N/A **Default Value** N/A
number	Yes	Integer	**Definition** Number of matching log events. When the number of log events that contain the configured keywords reaches the specified value, an alarm is triggered. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
search_time_range	Yes	Integer	**Definition** Time range for querying the latest data when an alarm task is executed. **Constraints** • When **search_time_range_unit** is set to **minute**, the maximum value is 60. • When **search_time_range_unit** is set to **hour**, the maximum value is 24. **Range** Minimum value: **1** Maximum value: **60** **Default Value** **1**
search_time_range_unit	Yes	String	**Definition** Unit of the alarm query time range. **Constraints** N/A **Range** • **minute** • **hour** **Default Value** **minute**

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Table 6-565 Frequency

Parameter	Mandatory	Type	Description
type	Yes	String	**Definition** Query frequency type of alarms. **Constraints** N/A **Range** • **CRON**: cron expression • **HOURLY**: every hour • **DAILY**: every day • **WEEKLY**: every week • **FIXED_RATE**: fixed interval **Default Value** N/A
cron_expr	No	String	**Definition** Cron expression. This parameter is mandatory when **type** is set to **CRON**. Cron expressions use the 24-hour format and are precise down to the minute. Examples: • 0/9 * * * *: The query runs every 9 minutes, starting at the 0th minute of every hour. • 0 18 * * *: The query runs at 18:00:00 every day. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
hour_of_day	No	Integer	**Definition** Every hour of every day. This parameter is mandatory when **type** is set to **DAILY** or **HOURLY**. **Constraints** N/A **Range** **DAILY**: 00:00 to 23:00 **Default Value** N/A
day_of_week	No	Integer	**Definition** Weekly. This parameter is mandatory when **type** is set to **WEEKLY**. **Constraints** N/A **Range** 00:00 to 23:00 on Sunday to Saturday **Default Value** N/A
fixed_rate	No	Integer	**Definition** Fixed interval. This parameter is mandatory when **type** is set to **FIXED_RATE**. **Constraints** N/A **Range** • When **fixed_rate_unit** is set to **minute**, the maximum value is 60. • When **fixed_rate_unit** is set to **hour**, the maximum value is 24. **Default Value** N/A

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Parameter	Mandatory	Type	Description
fixed_rate_unit	No	String	**Definition** Unit of the fixed interval. **Constraints** N/A **Range** • **minute** • **hour** **Default Value** N/A

Table 6-566 tagsRequestBody

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition** Tag key. **Constraints** • Each tag key must be unique. • A tag is a key-value pair. Each key is paired with its corresponding value. **Range** Each tag key can contain up to 128 characters, including only letters, digits, spaces, and special characters (_.:=+-@). Do not start or end with a space, nor start with *sys*. **Default Value** N/A

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Parameter	Mandatory	Type	Description
value	No	String	**Definition** Tag value. **Constraints** A tag is a key-value pair. Each key is paired with its corresponding value. **Range** • A tag value can contain letters, digits, spaces, and special characters (_.:=+-@). • A tag value can contain up to 255 characters. **Default Value** N/A

Response Parameters

Status code: 200

Table 6-567 Response body parameters

Parameter	Type	Description
keywords_alarm_rule_id	String	**Definition** Keyword alarm rule ID. **Range** N/A

Status code: 400

Table 6-568 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-569 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Create a keyword alarm rule.

```
POST https://{endpoint}/v2/{project_id}/lts/alarms/keywords-alarm-rule

{
  "keywords_alarm_rule_name" : "huawei",
  "keywords_alarm_rule_description" : "huawei",
  "keywords_requests" : [ {
    "log_stream_id" : "1",
    "log_group_id" : "1",
    "keywords" : "huawei",
    "condition" : ">",
    "number" : "100",
    "search_time_range" : 10,
    "search_time_range_unit" : "minute"
  } ],
  "frequency" : {
    "type" : "FIXED_RATE",
    "cron_expr" : "",
    "hour_of_day" : 0,
    "day_of_week" : 0,
    "fixed_rate" : 10,
    "fixed_rate_unit" : "minute"
  },
  "keywords_alarm_level" : "Critical",
  "domain_id" : "",
  "notification_frequency" : 5,
```

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```
  "alarm_action_rule_name" : ""
}
```

Example Responses

Status code: 200

The request is successful.

```
{
  "keywords_alarm_rule_id" : ""
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.2005",
  "error_msg" : "Alarm rule params validator error."
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.2001",
  "error_msg" : "Failed to create alarm rule."
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Create a keyword alarm rule.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateKeywordsAlarmRuleSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";
```

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```
        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateKeywordsAlarmRuleRequest request = new CreateKeywordsAlarmRuleRequest();
        CreateKeywordsAlarmRuleRequestBody body = new CreateKeywordsAlarmRuleRequestBody();
        Frequency frequencybody = new Frequency();
        frequencybody.withType(Frequency.TypeEnum.fromValue("FIXED_RATE"))
            .withCronExpr("")
            .withHourOfDay(0)
            .withDayOfWeek(0)
            .withFixedRate(10)
            .withFixedRateUnit(Frequency.FixedRateUnitEnum.fromValue("minute"));
        List<KeywordsRequest> listbodyKeywordsRequests = new ArrayList<>();
        listbodyKeywordsRequests.add(
            new KeywordsRequest()
                .withLogStreamId("1")
                .withLogGroupId("1")
                .withKeywords("huawei")
                .withCondition(KeywordsRequest.ConditionEnum.fromValue(">"))
                .withNumber(100)
                .withSearchTimeRange(10)
                .withSearchTimeRangeUnit(KeywordsRequest.SearchTimeRangeUnitEnum.fromValue("minute"))
        );
        body.withAlarmActionRuleName("");

body.withNotificationFrequency(CreateKeywordsAlarmRuleRequestBody.NotificationFrequencyEnum.NUMBE
R_5);
        body.withDomainId("");

body.withKeywordsAlarmLevel(CreateKeywordsAlarmRuleRequestBody.KeywordsAlarmLevelEnum.fromValu
e("Critical"));
        body.withFrequency(frequencybody);
        body.withKeywordsRequests(listbodyKeywordsRequests);
        body.withKeywordsAlarmRuleDescription("huawei");
        body.withKeywordsAlarmRuleName("huawei");
        request.withBody(body);
        try {
            CreateKeywordsAlarmRuleResponse response = client.createKeywordsAlarmRule(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Create a keyword alarm rule.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
```

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```
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateKeywordsAlarmRuleRequest()
        frequencybody = Frequency(
            type="FIXED_RATE",
            cron_expr="",
            hour_of_day=0,
            day_of_week=0,
            fixed_rate=10,
            fixed_rate_unit="minute"
        )
        listKeywordsRequestsbody = [
            KeywordsRequest(
                log_stream_id="1",
                log_group_id="1",
                keywords="huawei",
                condition=">",
                number=100,
                search_time_range=10,
                search_time_range_unit="minute"
            )
        ]
        request.body = CreateKeywordsAlarmRuleRequestBody(
            alarm_action_rule_name="",
            notification_frequency=5,
            domain_id="",
            keywords_alarm_level="Critical",
            frequency=frequencybody,
            keywords_requests=listKeywordsRequestsbody,
            keywords_alarm_rule_description="huawei",
            keywords_alarm_rule_name="huawei"
        )
        response = client.create_keywords_alarm_rule(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Create a keyword alarm rule.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
```

```
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateKeywordsAlarmRuleRequest{}
    cronExprFrequency:= ""
    hourOfDayFrequency:= int32(0)
    dayOfWeekFrequency:= int32(0)
    fixedRateFrequency:= int32(10)
    fixedRateUnitFrequency:= model.GetFrequencyFixedRateUnitEnum().MINUTE
    frequencybody := &model.Frequency{
        Type: model.GetFrequencyTypeEnum().FIXED_RATE,
        CronExpr: &cronExprFrequency,
        HourOfDay: &hourOfDayFrequency,
        DayOfWeek: &dayOfWeekFrequency,
        FixedRate: &fixedRateFrequency,
        FixedRateUnit: &fixedRateUnitFrequency,
    }
    var listKeywordsRequestsbody = []model.KeywordsRequest{
        {
            LogStreamId: "1",
            LogGroupId: "1",
            Keywords: "huawei",
            Condition: model.GetKeywordsRequestConditionEnum().GREATER_THAN,
            Number: int32(100),
            SearchTimeRange: int32(10),
            SearchTimeRangeUnit: model.GetKeywordsRequestSearchTimeRangeUnitEnum().MINUTE,
        },
    }
    alarmActionRuleNameCreateKeywordsAlarmRuleRequestBody:= ""
    keywordsAlarmRuleDescriptionCreateKeywordsAlarmRuleRequestBody:= "huawei"
    request.Body = &model.CreateKeywordsAlarmRuleRequestBody{
        AlarmActionRuleName: &alarmActionRuleNameCreateKeywordsAlarmRuleRequestBody,
        NotificationFrequency:
model.GetCreateKeywordsAlarmRuleRequestBodyNotificationFrequencyEnum().E_5,
        DomainId: "",
        KeywordsAlarmLevel:
model.GetCreateKeywordsAlarmRuleRequestBodyKeywordsAlarmLevelEnum().CRITICAL,
        Frequency: frequencybody,
        KeywordsRequests: listKeywordsRequestsbody,
        KeywordsAlarmRuleDescription:
&keywordsAlarmRuleDescriptionCreateKeywordsAlarmRuleRequestBody,
        KeywordsAlarmRuleName: "huawei",
    }
    response, err := client.CreateKeywordsAlarmRule(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
```

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```
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The request is successful.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.13.2 Modifying a Keyword Alarm Rule

Function

This API is used to modify a keyword alarm.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v2/{project_id}/lts/alarms/keywords-alarm-rule

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Table 6-570 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-571 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-572 Request body parameters

Parameter	Mandatory	Type	Description
keywords_alarm_rule_id	Yes	String	**Definition** Keyword alarm rule ID. **Constraints** • You can modify the current rule name, but cannot modify the original rule name (defined during rule creation). • Use only letters, digits, hyphens (-), and underscores (_). Do not start or end with a hyphen or underscore. • A maximum of 128 characters is allowed. **Range** N/A **Default Value** N/A
keywords_alarm_rule_name	Yes	String	**Definition** Keyword alarm rule name. **Constraints** You can modify the current rule name, but cannot modify the original rule name (defined during rule creation). **Range** Use only letters, digits, hyphens (-), and underscores (_). Do not start or end with a hyphen or underscore. A maximum of 128 characters is allowed. **Default Value** N/A

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Parameter	Mandatory	Type	Description
alarm_rule_alias	No	String	**Definition** Keyword alarm rule alias. **Constraints** • You can modify the current rule name, but cannot modify the original rule name (defined during rule creation). • Use only letters, digits, hyphens (-), and underscores (_). Do not start or end with a hyphen or underscore. • A maximum of 128 characters is allowed. **Range** N/A **Default Value** N/A
keywords_alarm_rule_description	No	String	**Definition** Brief description of a keyword alarm rule. **Constraints** N/A **Range** A maximum of 128 characters is allowed. **Default Value** N/A
keywords_requests	Yes	Array of **KeywordsRequest** objects	**Definition** Keyword alarm rule information. **Constraints** N/A
frequency	Yes	**Frequency** object	**Definition** Keyword alarm query frequency. **Constraints** N/A

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Parameter	Mandatory	Type	Description
keywords_alarm_level	Yes	String	**Definition** Keyword alarm severity. **Constraints** N/A **Range** • **Info** • **Minor** • **Major** • **Critical** **Default Value** N/A
domain_id	Yes	String	**Definition** Account ID. For details about how to obtain it, see **Obtaining an Account ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
trigger_condition_count	No	Integer	**Definition** Alarm triggering condition: number of times the condition is met. It specifies the number of times a configured keyword must appear to trigger an alarm. When this count is reached within a specified number of queries, a keyword alarm is triggered. **Constraints** • **trigger_condition_count** and **trigger_condition_frequency** must be configured in conjunction to trigger a keyword alarm. • The number of queries (**trigger_condition_frequency**) must be greater than or equal to the number of times the condition must be met (**trigger_condition_count**). **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
trigger_condition_frequency	No	Integer	**Definition** Alarm triggering condition: number of queries. It refers to the number of queries set in the advanced settings. When the value of **trigger_condition_count** is reached within a specified number of queries, a keyword alarm is triggered. **Constraints** • **trigger_condition_count** and **trigger_condition_frequency** must be configured in conjunction to trigger a keyword alarm. • The number of queries (**trigger_condition_frequency**) must be greater than or equal to the number of times the condition must be met (**trigger_condition_count**). **Range** Minimum value: **1** Maximum value: **10** **Default Value** N/A
whether_recovery_policy	No	Boolean	**Definition** Whether to configure an alarm restoration policy. If this policy is met, an alarm restoration notification is sent. **Constraints** N/A **Range** • **true**: configures an alarm restoration policy. • **false**: does not configure an alarm restoration policy. **Default Value** false

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Parameter	Mandatory	Type	Description
recovery_policy	No	Integer	**Definition** Number of consecutive queries in which the alarm's trigger condition must not be met. If alarm restoration notification is enabled and the trigger condition has not been met for the specified number of last queries, an alarm restoration notification is sent. **Constraints** N/A **Range** • Minimum value: **1** • Maximum value: **10** **Default Value** N/A

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Parameter	Mandatory	Type	Description
notification_frequency	Yes	Integer	**Definition** Alarm notification frequency. The options are immediate, every 5 minutes, every 10 minutes, every 15 minutes, every 30 minutes, every 1 hour, every 3 hours, and every 6 hours. Immediate indicates that a notification is sent once an alarm is generated. Every 10 minutes indicates that the minimum interval between two notifications is 10 minutes, preventing alarm storms. **Constraints** N/A **Range** • *0* • **5** • **10** • **15** • **30** • **60** • **180** • **630** **Default Value** N/A

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Parameter	Mandatory	Type	Description
alarm_action_rule_name	No	String	**Definition** Alarm action rule name. **Constraints** N/A **Range** • Use only letters, digits, hyphens (-), and underscores (_). Do not start or end with a hyphen or underscore. • A maximum of 128 characters is allowed. **Default Value** N/A
tags	No	Array of **tagsRequestBody** objects	**Definition** Alarm tag information. A tag is a key-value pair. Each key is paired with its corresponding value. **Constraints** N/A

Table 6-573 KeywordsRequest

Parameter	Mandatory	Type	Description
log_stream_id	Yes	String	**Definition** Log stream ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
log_stream_name	No	String	**Definition** Log stream name. If a log group contains more than one log stream, you can select multiple log streams when creating a keyword alarm rule. **Constraints** • Use only letters, digits, hyphens (-), underscores (_), and periods (.). Do not start with a period or underscore or end with a period. • Enter 1 to 64 characters. **Range** N/A **Default Value** N/A
log_group_id	Yes	String	**Definition** Log stream ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A
log_group_name	No	String	**Definition** Log group name. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
keywords	Yes	String	**Definition** Keyword that can be found in logs. Exact and fuzzy matches are supported. Enter up to 1,024 characters. For details about how to set keyword search, see **Using Search Syntax**. **Constraints** N/A **Range** A maximum of 1,024 characters is allowed. **Default Value** N/A
condition	Yes	String	**Definition** Trigger condition. When the condition is met, an alarm is triggered. **Constraints** N/A **Range** N/A **Default Value** N/A
number	Yes	Integer	**Definition** Number of matching log events. When the number of log events that contain the configured keywords reaches the specified value, an alarm is triggered. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
search_time_range	Yes	Integer	**Definition** Time range for querying the latest data when an alarm task is executed. **Constraints** • When **search_time_range_unit** is set to **minute**, the maximum value is 60. • When **search_time_range_unit** is set to **hour**, the maximum value is 24. **Range** Minimum value: **1** Maximum value: **60** **Default Value** **1**
search_time_range_unit	Yes	String	**Definition** Unit of the alarm query time range. **Constraints** N/A **Range** • **minute** • **hour** **Default Value** **minute**

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Table 6-574 Frequency

Parameter	Mandatory	Type	Description
type	Yes	String	**Definition** Query frequency type of alarms. **Constraints** N/A **Range** • **CRON**: cron expression • **HOURLY**: every hour • **DAILY**: every day • **WEEKLY**: every week • **FIXED_RATE**: fixed interval **Default Value** N/A
cron_expr	No	String	**Definition** Cron expression. This parameter is mandatory when **type** is set to **CRON**. Cron expressions use the 24-hour format and are precise down to the minute. Examples: • 0/9 * * * *: The query runs every 9 minutes, starting at the 0th minute of every hour. • 0 18 * * *: The query runs at 18:00:00 every day. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
hour_of_day	No	Integer	**Definition** Every hour of every day. This parameter is mandatory when **type** is set to **DAILY** or **HOURLY**. **Constraints** N/A **Range** **DAILY**: 00:00 to 23:00 **Default Value** N/A
day_of_week	No	Integer	**Definition** Weekly. This parameter is mandatory when **type** is set to **WEEKLY**. **Constraints** N/A **Range** 00:00 to 23:00 on Sunday to Saturday **Default Value** N/A
fixed_rate	No	Integer	**Definition** Fixed interval. This parameter is mandatory when **type** is set to **FIXED_RATE**. **Constraints** N/A **Range** • When **fixed_rate_unit** is set to **minute**, the maximum value is 60. • When **fixed_rate_unit** is set to **hour**, the maximum value is 24. **Default Value** N/A

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Parameter	Mandatory	Type	Description
fixed_rate_unit	No	String	**Definition** Unit of the fixed interval. **Constraints** N/A **Range** • **minute** • **hour** **Default Value** N/A

Table 6-575 tagsRequestBody

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition** Tag key. **Constraints** • Each tag key must be unique. • A tag is a key-value pair. Each key is paired with its corresponding value. **Range** Each tag key can contain up to 128 characters, including only letters, digits, spaces, and special characters (_.:=+-@). Do not start or end with a space, nor start with *sys*. **Default Value** N/A

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Parameter	Mandatory	Type	Description
value	No	String	**Definition** Tag value. **Constraints** A tag is a key-value pair. Each key is paired with its corresponding value. **Range** • A tag value can contain letters, digits, spaces, and special characters (_.:=+-@). • A tag value can contain up to 255 characters. **Default Value** N/A

Response Parameters

Status code: 200

Table 6-576 Response body parameters

Parameter	Type	Description
keywords_alarm_rule_id	String	**Definition** Keyword alarm rule ID. **Range** N/A
keywords_alarm_rule_name	String	**Definition** Keyword alarm rule name. **Range** N/A
alarm_rule_alias	String	**Definition** Keyword alarm rule alias. **Range** N/A

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Parameter	Type	Description
keywords_alarm_rule_description	String	**Definition** Brief description of a keyword alarm rule. **Range** N/A
keywords_requests	Array of **KeywordsRequestResponse** objects	**Definition** Keyword alarm rule information. **Constraints** N/A
frequency	**FrequencyRespBody** object	**Definition** Keyword alarm query frequency. **Constraints** N/A
keywords_alarm_level	String	**Definition** Keyword alarm severity. **Range** • **Info** • **Minor** • **Major** • **Critical**
keywords_alarm_send	Boolean	**Definition** Whether to send alarm notifications. **Range** • **true**: sends alarm notifications. • **false**: does not send alarm notifications.
domain_id	String	**Definition** Account ID. For details about how to obtain it, see **Obtaining an Account ID**. **Range** N/A
create_time	Long	**Definition** Time when the keyword alarm rule was created (timestamp in milliseconds). **Range** N/A

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Parameter	Type	Description
update_time	Long	**Definition** Time when the keyword alarm rule was modified (timestamp in milliseconds). **Range** N/A
projectId	String	**Definition** Project ID. **Range** N/A
condition_expression	String	**Definition** Alarm condition expression. **Range** N/A
trigger_condition_count	Integer	**Definition** Alarm triggering condition: number of times the condition is met. It specifies the number of times a configured keyword must appear to trigger an alarm. When this count is reached within a specified number of queries, a keyword alarm is triggered. **Range** N/A
trigger_condition_frequency	Integer	**Definition** Alarm triggering condition: number of queries. It refers to the number of queries set in the advanced settings. When the value of **trigger_condition_count** is reached within a specified number of queries, a keyword alarm is triggered. **Range** ● Minimum value: **1** ● Maximum value: **10**

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Parameter	Type	Description
whether_recovery_policy	Boolean	**Definition** Whether to configure an alarm restoration policy. If this policy is met, an alarm restoration notification is sent. **Range** **true**: configures an alarm restoration policy. **false**: does not configure an alarm restoration policy.
recovery_policy	Integer	**Definition** Number of consecutive queries in which the alarm's trigger condition must not be met. If alarm restoration notification is enabled and the trigger condition has not been met for the specified number of last queries, an alarm restoration notification is sent. **Range** • Minimum value: **1** • Maximum value: **10**
notification_frequency	Integer	**Definition** Alarm notification frequency. The options are immediate, every 5 minutes, every 10 minutes, every 15 minutes, every 30 minutes, every 1 hour, every 3 hours, and every 6 hours. Immediate indicates that a notification is sent once an alarm is generated. Every 10 minutes indicates that the minimum interval between two notifications is 10 minutes, preventing alarm storms. **Range** • *0* • **5** • **10** • **15** • **30** • **60** • **180** • **630**

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Parameter	Type	Description
alarm_action_rule_name	String	**Definition** Alarm action rule name. **Range** N/A
tags	Array of **tagsResBody** objects	**Definition** Alarm tag information. A tag is a key-value pair. Each key is paired with its corresponding value.

Table 6-577 KeywordsRequestResponse

Parameter	Type	Description
log_stream_id	String	**Definition** Log stream ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Range** N/A
log_stream_name	String	**Definition** Log stream name. **Range** N/A
log_group_id	String	**Definition** Log stream ID. **Range** N/A
log_group_name	String	**Definition** Log group name. **Range** N/A
keywords	String	**Definition** Keyword that can be found in logs. **Range** N/A

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Parameter	Type	Description
condition	String	**Definition** Alarm query condition. **Range** <, - >, <=, >=
number	Integer	**Definition** Number of matched alarms. **Range** N/A
search_time_range	Integer	**Definition** Time range for querying the latest data when an alarm task is executed. **Range** • Minimum value: **1** • Maximum value: **60**
search_time_range_unit	String	**Definition** Unit of the alarm query time range. **Range** • **minute** • **hour**

Table 6-578 FrequencyRespBody

Parameter	Type	Description
type	String	**Definition** Query frequency type of alarms. **Range** • **CRON**: cron expression • **HOURLY**: every hour • **DAILY**: every day • **WEEKLY**: every week • **FIXED_RATE**: fixed interval

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Parameter	Type	Description
cron_expr	String	**Definition** Cron expression. This parameter is returned when **type** is set to **CRON**. Cron expressions use the 24-hour format and are precise down to the minute. **Range** N/A
hour_of_day	Integer	**Definition** Every hour of every day. This parameter is returned when **type** is set to **DAILY** or **HOURLY**. **Range** N/A
day_of_week	Integer	**Definition** Weekly. This parameter is returned when **type** is set to **WEEKLY**. **Range** N/A
fixed_rate	Integer	**Definition** Fixed interval. This parameter is returned when **type** is set to **FIXED_RATE**. **Range** N/A
fixed_rate_unit	String	**Definition** Unit of the fixed interval. **Range** • **minute** • **hour**

Table 6-579 tagsResBody

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

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

Status code: 400

Table 6-580 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-581 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Modify a keyword alarm rule.

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```
PUT https://{endpoint}/v2/{project_id}/lts/alarms/keywords-alarm-rule

{
  "keywords_alarm_rule_id" : "",
  "keywords_alarm_rule_name" : "huawei",
  "alarm_rule_alias" : "zhangsan",
  "keywords_alarm_rule_description" : "huawei",
  "keywords_requests" : [ {
    "log_stream_id" : "1",
    "log_group_id" : "1",
    "keywords" : "huawei",
    "condition" : ">",
    "number" : "100",
    "search_time_range" : 10,
    "search_time_range_unit" : "minute"
  } ],
  "frequency" : {
    "type" : "FIXED_RATE",
    "cron_expr" : "",
    "hour_of_day" : 0,
    "day_of_week" : 0,
    "fixed_rate" : 10,
    "fixed_rate_unit" : "minute"
  },
  "keywords_alarm_level" : "Critical",
  "domain_id" : "",
  "notification_frequency" : 5,
  "alarm_action_rule_name" : ""
}
```

Example Responses

Status code: 200

The request is successful.

```
{
  "keywords_alarm_rule_id" : "",
  "keywords_alarm_rule_name" : "huawei",
  "keywords_alarm_rule_description" : "huawei",
  "alarm_rule_alias" : "zhangsan",
  "keywords_requests" : [ {
    "log_stream_id" : "1",
    "log_stream_name" : "huawei",
    "log_group_name" : "huawei",
    "log_group_id" : "1",
    "keywords" : "huawei",
    "condition" : ">",
    "number" : "100",
    "search_time_range" : 10,
    "search_time_range_unit" : "minute"
  } ],
  "frequency" : {
    "type" : "FIXED_RATE",
    "cron_expr" : "",
    "hour_of_day" : 0,
    "day_of_week" : 0,
    "fixed_rate" : 10,
    "fixed_rate_unit" : "minute"
  },
  "keywords_alarm_level" : "Critical",
  "keywords_alarm_send" : false,
  "domain_id" : "",
  "notification_frequency" : 5,
  "alarm_action_rule_name" : ""
}
```

Status code: 400

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Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.2005",
  "error_msg" : "Alarm rule params validator error."
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.2003",
  "error_msg" : "Failed to update alarm rule."
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Modify a keyword alarm rule.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class UpdateKeywordsAlarmRuleSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateKeywordsAlarmRuleRequest request = new UpdateKeywordsAlarmRuleRequest();
        UpdateKeywordsAlarmRuleRequestBody body = new UpdateKeywordsAlarmRuleRequestBody();
        Frequency frequencybody = new Frequency();
        frequencybody.withType(Frequency.TypeEnum.fromValue("FIXED_RATE"))
            .withCronExpr("")
            .withHourOfDay(0)
            .withDayOfWeek(0)
```

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```
            .withFixedRate(10)
            .withFixedRateUnit(Frequency.FixedRateUnitEnum.fromValue("minute"));
        List<KeywordsRequest> listbodyKeywordsRequests = new ArrayList<>();
        listbodyKeywordsRequests.add(
            new KeywordsRequest()
                .withLogStreamId("1")
                .withLogGroupId("1")
                .withKeywords("huawei")
                .withCondition(KeywordsRequest.ConditionEnum.fromValue(">"))
                .withNumber(100)
                .withSearchTimeRange(10)
                .withSearchTimeRangeUnit(KeywordsRequest.SearchTimeRangeUnitEnum.fromValue("minute"))
        );
        body.withAlarmActionRuleName("");

body.withNotificationFrequency(UpdateKeywordsAlarmRuleRequestBody.NotificationFrequencyEnum.NUMB
ER_5);
        body.withDomainId("");

body.withKeywordsAlarmLevel(UpdateKeywordsAlarmRuleRequestBody.KeywordsAlarmLevelEnum.fromValu
e("Critical"));
        body.withFrequency(frequencybody);
        body.withKeywordsRequests(listbodyKeywordsRequests);
        body.withKeywordsAlarmRuleDescription("huawei");
        body.withAlarmRuleAlias("zhangsan");
        body.withKeywordsAlarmRuleName("huawei");
        body.withKeywordsAlarmRuleId("");
        request.withBody(body);
        try {
            UpdateKeywordsAlarmRuleResponse response = client.updateKeywordsAlarmRule(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Modify a keyword alarm rule.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security
risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment
variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)
```

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```
    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateKeywordsAlarmRuleRequest()
        frequencybody = Frequency(
            type="FIXED_RATE",
            cron_expr="",
            hour_of_day=0,
            day_of_week=0,
            fixed_rate=10,
            fixed_rate_unit="minute"
        )
        listKeywordsRequestsbody = [
            KeywordsRequest(
                log_stream_id="1",
                log_group_id="1",
                keywords="huawei",
                condition=">",
                number=100,
                search_time_range=10,
                search_time_range_unit="minute"
            )
        ]
        request.body = UpdateKeywordsAlarmRuleRequestBody(
            alarm_action_rule_name="",
            notification_frequency=5,
            domain_id="",
            keywords_alarm_level="Critical",
            frequency=frequencybody,
            keywords_requests=listKeywordsRequestsbody,
            keywords_alarm_rule_description="huawei",
            alarm_rule_alias="zhangsan",
            keywords_alarm_rule_name="huawei",
            keywords_alarm_rule_id=""
        )
        response = client.update_keywords_alarm_rule(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Modify a keyword alarm rule.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"
```

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```
    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateKeywordsAlarmRuleRequest{}
    cronExprFrequency:= ""
    hourOfDayFrequency:= int32(0)
    dayOfWeekFrequency:= int32(0)
    fixedRateFrequency:= int32(10)
    fixedRateUnitFrequency:= model.GetFrequencyFixedRateUnitEnum().MINUTE
    frequencybody := &model.Frequency{
        Type: model.GetFrequencyTypeEnum().FIXED_RATE,
        CronExpr: &cronExprFrequency,
        HourOfDay: &hourOfDayFrequency,
        DayOfWeek: &dayOfWeekFrequency,
        FixedRate: &fixedRateFrequency,
        FixedRateUnit: &fixedRateUnitFrequency,
    }
    var listKeywordsRequestsbody = []model.KeywordsRequest{
        {
            LogStreamId: "1",
            LogGroupId: "1",
            Keywords: "huawei",
            Condition: model.GetKeywordsRequestConditionEnum().GREATER_THAN,
            Number: int32(100),
            SearchTimeRange: int32(10),
            SearchTimeRangeUnit: model.GetKeywordsRequestSearchTimeRangeUnitEnum().MINUTE,
        },
    }
    alarmActionRuleNameUpdateKeywordsAlarmRuleRequestBody:= ""
    keywordsAlarmRuleDescriptionUpdateKeywordsAlarmRuleRequestBody:= "huawei"
    alarmRuleAliasUpdateKeywordsAlarmRuleRequestBody:= "zhangsan"
    request.Body = &model.UpdateKeywordsAlarmRuleRequestBody{
        AlarmActionRuleName: &alarmActionRuleNameUpdateKeywordsAlarmRuleRequestBody,
        NotificationFrequency:
model.GetUpdateKeywordsAlarmRuleRequestBodyNotificationFrequencyEnum().E_5,
        DomainId: "",
        KeywordsAlarmLevel:
model.GetUpdateKeywordsAlarmRuleRequestBodyKeywordsAlarmLevelEnum().CRITICAL,
        Frequency: frequencybody,
        KeywordsRequests: listKeywordsRequestsbody,
        KeywordsAlarmRuleDescription:
&keywordsAlarmRuleDescriptionUpdateKeywordsAlarmRuleRequestBody,
        AlarmRuleAlias: &alarmRuleAliasUpdateKeywordsAlarmRuleRequestBody,
        KeywordsAlarmRuleName: "huawei",
        KeywordsAlarmRuleId: "",
    }
    response, err := client.UpdateKeywordsAlarmRule(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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Status Codes

Status Code	Description
200	The request is successful.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.13.3 Querying a Keyword Alarm Rule

Function

This API is used to query a keyword alarm.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/lts/alarms/keywords-alarm-rule

Table 6-582 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Request Parameters

Table 6-583 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

Table 6-584 Response body parameters

Parameter	Type	Description
keywords_alarm_rules	Array of **KeywordsAlarmRuleRespList** objects	**Definition** Keyword alarm rule ID.

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Table 6-585 KeywordsAlarmRuleRespList

Parameter	Type	Description
projectId	String	**Definition** Project ID. **Range** N/A
keywords_alarm_rule_id	String	**Definition** Keyword alarm rule ID. **Range** N/A
keywords_alarm_rule_name	String	**Definition** Keyword alarm rule name. **Range** N/A
keywords_alarm_rule_description	String	**Definition** Brief description of a keyword alarm rule. **Range** N/A
condition_expression	String	**Definition** Alarm condition expression. **Range** N/A
keywords_requests	Array of **KeywordsRequestResponse** objects	**Definition** Keyword alarm rule information.
frequency	**FrequencyRespBody** object	**Definition** Keyword alarm query frequency. **Constraints** N/A
keywords_alarm_level	String	**Definition** Keyword alarm severity. **Range** • **Info** • **Minor** • **Major** • **Critical**

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Parameter	Type	Description
domain_id	String	**Definition** Account ID. For details about how to obtain it, see **Obtaining an Account ID**. **Range** N/A
create_time	Long	**Definition** Creation time (timestamp in milliseconds). **Range** N/A
update_time	Long	**Definition** Update time (timestamp in milliseconds). **Range** N/A
status	String	**Definition** Keyword alarm status. **Range** • **RUNNING** (enabled) • **STOPPING** (disabled)
trigger_condition_count	Integer	**Definition** Alarm triggering condition: number of times the condition is met. **Range** N/A
trigger_condition_frequency	Integer	**Definition** Alarm triggering condition: number of queries. **Range** N/A
whether_recovery_policy	Boolean	**Definition** Whether to configure an alarm restoration policy. **Range** • **true**: configures an alarm restoration policy. • **false**: does not configure an alarm restoration policy.

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Parameter	Type	Description
recovery_policy	Integer	**Definition** Number of consecutive queries in which the alarm's trigger condition must not be met. **Range** • Minimum value: **1** • Maximum value: **10**
notification_frequency	Integer	**Definition** Keyword alarm notification frequency, in minutes. **Range** **0**, **5**, **10**, **15**, **30**, **60**, **180**, or **360**
alarm_action_rule_name	String	**Definition** Alarm action rule name. **Range** N/A
tags	Array of **tagsResBody** objects	**Definition** Alarm tag information. A tag is a key-value pair. Each key is paired with its corresponding value.

Table 6-586 KeywordsRequestResponse

Parameter	Type	Description
log_stream_id	String	**Definition** Log stream ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Range** N/A
log_stream_name	String	**Definition** Log stream name. **Range** N/A
log_group_id	String	**Definition** Log stream ID. **Range** N/A

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Parameter	Type	Description
log_group_name	String	**Definition** Log group name. **Range** N/A
keywords	String	**Definition** Keyword that can be found in logs. **Range** N/A
condition	String	**Definition** Alarm query condition. **Range** <, - >, <=, >=
number	Integer	**Definition** Number of matched alarms. **Range** N/A
search_time_range	Integer	**Definition** Time range for querying the latest data when an alarm task is executed. **Range** • Minimum value: **1** • Maximum value: **60**
search_time_range_unit	String	**Definition** Unit of the alarm query time range. **Range** • **minute** • **hour**

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Table 6-587 FrequencyRespBody

Parameter	Type	Description
type	String	**Definition** Query frequency type of alarms. **Range** • **CRON**: cron expression • **HOURLY**: every hour • **DAILY**: every day • **WEEKLY**: every week • **FIXED_RATE**: fixed interval
cron_expr	String	**Definition** Cron expression. This parameter is returned when **type** is set to **CRON**. Cron expressions use the 24-hour format and are precise down to the minute. **Range** N/A
hour_of_day	Integer	**Definition** Every hour of every day. This parameter is returned when **type** is set to **DAILY** or **HOURLY**. **Range** N/A
day_of_week	Integer	**Definition** Weekly. This parameter is returned when **type** is set to **WEEKLY**. **Range** N/A
fixed_rate	Integer	**Definition** Fixed interval. This parameter is returned when **type** is set to **FIXED_RATE**. **Range** N/A
fixed_rate_unit	String	**Definition** Unit of the fixed interval. **Range** • **minute** • **hour**

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Table 6-588 tagsResBody

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

Status code: 500

Table 6-589 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Query a keyword alarm rule.

```
GET https://{endpoint}/v2/{project_id}/lts/alarms/keywords-alarm-rule

/v2/{project_id}/lts/alarms/keywords-alarm-rule
```

Example Responses

Status code: 200

The request is successful.

```
{
  "keywords_alarm_rules" : [ {
```

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```
  "projectId" : "string",
  "keywords_alarm_rule_id" : "string",
  "keywords_alarm_rule_name" : "string",
  "keywords_alarm_rule_description" : "string",
  "condition_expression" : "string",
  "keywords_requests" : [ {
    "log_stream_id" : "string",
    "log_stream_name" : "string",
    "log_group_id" : "string",
    "log_group_name" : "string",
    "keywords" : "string",
    "condition" : ">=",
    "number" : 1,
    "search_time_range" : 0,
    "search_time_range_unit" : "minute"
  } ],
  "frequency" : {
    "type" : "CRON",
    "cron_expr" : "string",
    "hour_of_day" : 0,
    "day_of_week" : 0,
    "fixed_rate" : 0,
    "fixed_rate_unit" : "minute"
  },
  "keywords_alarm_level" : "Info",
  "domain_id" : "string",
  "create_time" : 0,
  "update_time" : 0,
  "status" : "RUNNING",
  "trigger_condition_count" : "1",
  "trigger_condition_frequency" : "1",
  "whether_recovery_policy" : false,
  "recovery_policy" : "3",
  "notification_frequency" : 5,
  "alarm_action_rule_name" : ""
 } ]
}
```


Status code: 500

The server has received the request but encountered an internal error.


```
{
  "error_code" : "LTS.2008",
  "error_msg" : "Find Alarm rule failed."
}
```


Status Codes

Status Code	Description
200	The request is successful.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

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6.13.4 Deleting a Keyword Alarm Rule

Function

This API is used to delete a keyword alarm.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v2/{project_id}/lts/alarms/keywords-alarm-rule/{keywords_alarm_rule_id}

Table 6-590 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A
keywords_alarm_rule_id	Yes	String	**Definition** Keyword alarm rule ID. **Constraints** N/A **Range** N/A **Default Value** N/A

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Request Parameters

Table 6-591 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

The request is successful.

Status code: 500

Table 6-592 Response body parameters

Parameter	Type	Description
error_code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
error_msg	String	**Definition** Error message. **Range** N/A

Example Requests

Delete a keyword alarm by alarm ID.

```
POST https://{endpoint}/v2/{project_id}/lts/alarms/keywords-alarm-rule/{keywords_alarm_rule_id}

/v2/{project_id}/lts/alarms/keywords-alarm-rule/{keywords_alarm_rule_id}
```

Example Responses

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.2002",
  "error_msg" : "Failed to update alarm rule."
}
```

Status Codes

Status Code	Description
200	The request is successful.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.14 Alarm List

6.14.1 Querying the Active or Historical Alarm List

Function

This API is used to query the active or historical alarm list. You can set filter criteria in the request parameters, such as the alarm time range, alarm severity, and alarm source. After receiving the request, the system uses the efficient index

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mechanism to quickly search the alarm database and accurately filter active or historical alarms that meet the criteria.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/{domain_id}/lts/alarms/sql-alarm/query

Table 6-593 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A
domain_id	Yes	String	**Definition** Account ID. For details about how to obtain it, see **Obtaining an Account ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-594 Query Parameters

Parameter	Mandatory	Type	Description
type	Yes	String	**Definition** Alarm type. The value can be **active_alert** or **history_alert**. If this parameter is not transferred or other values are transferred, all active and historical alarms that meet other query conditions are returned. **Constraints** N/A **Range** • **active_alert**: active alarms, which have not been cleared after being triggered. • **history_alert**: historical alarms, which have been manually cleared. For details, see **Checking Alarms**. **Default Value** N/A
marker	No	String	**Definition** Pagination marker. The subsequent value is the value of **next_marker** in the response body. **Constraints** N/A **Range** N/A **Default Value** **0**: The pagination marker starts from **0**, indicating that the alarm list is displayed in pages from **0**.

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Parameter	Mandatory	Type	Description
limit	No	Integer	**Definition** Maximum number of alarms returned for each query. **Constraints** N/A **Range** • Minimum value: **0** • Maximum value: **1000** **Default Value** **1000**: returns 1,000 alarms in sequence.

Request Parameters

Table 6-595 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints:** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-596 Request body parameters

Parameter	Mandatory	Type	Description
whether_custom_field	Yes	Boolean	**Definition** Whether to specify a custom query time range. **Constraints** N/A **Range** • **true**: The query uses a custom time range, with the specific start and end times defined by **start_time** and **end_time**. • **false**: The query uses a relative time range, with the duration defined by the **time_range** field and measured backward from the current time. **Default Value** **false**
start_time	No	Long	**Definition** Start time for querying alarms in a custom time range. The time range between **start_time** and **end_time** includes both the start time and end time. **Constraints** The values of **start_time** and **end_time** must be different. **Range** The value must be a timestamp, measured in milliseconds from January 1, 1970, 00:00:00 UTC. **Default Value** N/A

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Parameter	Mandatory	Type	Description
end_time	No	Long	**Definition** End time for querying alarms in a custom time range. The time range between **start_time** and **end_time** includes both the start time and end time. **Constraints** The values of **start_time** and **end_time** must be different. **Range** The value must be a timestamp, measured in milliseconds from January 1, 1970, 00:00:00 UTC. **Default Value** N/A
time_range	No	String	**Definition** Alarms generated within this time range will be queried. This parameter addresses the issue of client and server time inconsistency. Examples: • **-1.-1.60**: indicates that the data of the latest 60 minutes is queried. This query is based on the server time regardless of the current client time. • **1650852000000.1650852300000.5**: indicates the five minutes from 10:00:00 to 10:05:00 on April 25, 2022 GMT+08:00. **Constraints** In a single request, the following condition must be met: **durationInMinutes** x 60/ **period** ≤ 1,440 **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
search	No	String	**Definition** Field specified for fuzzy query, which can be left blank. If the value is not empty, fuzzy match will be performed. **Constraints** N/A **Range** Any field in **metadata**. **Default Value** N/A
alarm_level_ids	No	Array of strings	**Definition** Alarm severity. The supported alarm severities are **Critical**, **Major**, **Minor**, and **Info**. **Constraints** You can only enter supported alarm severities.
sort	No	**Sort** object	**Definition** Sorting order of the response result list. This parameter can be left blank. If it is left blank, alarms are sorted by the alarm generation time (**starts_at**) by default. **Constraints** N/A
step	No	Long	**Definition** Statistical step, in milliseconds. For example, to set the statistical step to one minute, enter **60000**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-597 Sort

Parameter	Mandatory	Type	Description
order_by	Yes	Array of strings	**Definition** Field to sort the results by. For example, if you enter **starts_at**, the returned list will be sorted by alarm generation time. If the array length is 1, this parameter can only be set to **starts_at**. **Constraints** N/A
order	Yes	String	**Definition** Sorting order. **Constraints** N/A **Range** • **asc** • **desc** **Default Value** **desc**

Response Parameters

Status code: 200

Table 6-598 Response body parameters

Parameter	Type	Description
events	Array of **Events** objects	**Definition** Alarm details.
page_info	**PageInfo** object	**Definition** Pagination information.

Table 6-599 Events

Parameter	Type	Description
annotations	**Annotations** object	**Definition** Additional alarm field.

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Parameter	Type	Description
metadata	**Metadata** object	**Definition** Alarm information.
arrives_at	Long	**Definition** Alarm reporting time (timestamp in milliseconds). **Range** N/A
ends_at	Long	**Definition** Alarm clearance time (timestamp in milliseconds). The value **0** indicates that the alarm is not deleted. **Range** N/A
id	String	**Definition** Alarm ID. **Range** N/A
starts_at	Long	**Definition** Alarm generation time (timestamp in millisecond). **Range** N/A
timeout	Long	**Definition** Duration at which an alarm is automatically cleared, in millisecond. For example, to set the duration to one minute, enter **60,000**. The default value is 7200 * 60000, which represents five days. This is calculated as: 5 days × 24 hours × 60 minutes × 60,000 ms. **Range** N/A
type	String	**Definition** Alarm rule type. **Range** • **SQL** • **Keyword**

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Table 6-600 Annotations

Parameter	Type	Description
message	String	**Definition** Alarm triggering details. **Range** N/A
log_info	String	**Definition** Log group/stream details. **Range** N/A
current_value	String	**Definition** Current value of the condition expression. For example, if the condition expression is **pv > 0**, the value of **current_value** is **{"pv":100}**. **Range** N/A
old_annotations	String	**Definition** Alarm rule details. **Range** N/A
alarm_action_rule_name	String	**Definition** Alarm action rule name. **Range** N/A
alarm_rule_alias	String	**Definition** Alarm rule alias. **Range** N/A
alarm_rule_url	String	**Definition** Alarm rule URL. **Range** N/A
alarm_status	String	**Definition** Alarm triggering status. **Range** • **firing**: triggered • **resolved**: restored

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Parameter	Type	Description
condition_expression	String	**Definition** Alarm triggering condition expression. **Range** N/A
condition_expression_with_value	String	**Definition** Alarm triggering condition expression with values. For example, if the condition expression is **pv > 0**, the value of **condition_expression_with_value** is **100 > 0**. **Range** N/A
notification_frequency	String	**Definition** Notification frequency. **Range** N/A
record_id	String	**Definition** Alarm ID. **Range** N/A
recovery_policy	Boolean	**Definition** Whether to enable the alarm restoration function. **Range** • **true**: enables the alarm restoration function. • **false**: disables the alarm restoration function.
results	Array of **results** objects	**Definition** Alarm notification details.
frequency	String	**Definition** Query frequency of alarms. **Range** N/A

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Parameter	Type	Description
type	String	**Definition** Alarm rule type. **Range** • **sql**: SQL alarm rule • **keywords**: keyword alarm rule

Table 6-601 results

Parameter	Type	Description
eps_id	String	**Definition** Enterprise project ID. **Range** N/A
log_group_name	String	**Definition** Log group name. **Range** N/A
log_group_name_alias	String	**Definition** Log group alias. **Range** N/A
log_stream_name	String	**Definition** Log stream name. **Range** N/A
log_stream_name_alias	String	**Definition** Log stream alias. **Range** N/A
time	String	**Definition** Alarm query frequency, for example, 1 hour. **Range** N/A

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Table 6-602 Metadata

Parameter	Type	Description
event_type	String	**Definition** Alarm type. **Range** **alarm**
event_id	String	**Definition** Alarm rule ID. **Range** N/A
event_severity	String	**Definition** Alarm severity. **Range** • **Info** • **Minor** • **Major** • **Critical**
event_name	String	**Definition** Alarm rule name. **Range** N/A
resource_type	String	**Definition** Resource type. **Range** **Log group/stream**
resource_id	String	**Definition** Original log group/stream name. **Range** N/A
resource_provider	String	**Definition** Alarm source. **Range** **LTS**

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Parameter	Type	Description
lts_alarm_type	String	**Definition** Alarm rule type. **Range** • **sql**: SQL alarm rule • **keywords**: keyword alarm rule • **search_analysis**: Search | Analysis alarm rule
log_group_name	String	**Definition** Original log group name. **Range** N/A
log_stream_name	String	**Definition** Original log stream name. **Range** N/A
event_subtype	String	**Definition** Alarm type. **Range** • **sql**: SQL alarm rule • **keywords**: keyword alarm rule

Table 6-603 PageInfo

Parameter	Type	Description
next_marker	String	**Definition** Address of the next page. If an empty value is returned, there is no next page. **Range** N/A
previous_marker	String	**Definition** Address of the previous page. **Range** N/A

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Parameter	Type	Description
current_count	String	**Definition** Total number of alarms on the current page. **Range** N/A

Example Requests

Query the active or historical alarm list.

```
/v2/{project_id}/{domain_id}/lts/alarms/sql-alarm/query?type=active_alert

POST https://{endpoint}/v2/{project_id}/{domain_id}/lts/alarms/sql-alarm/query?type={type}

{
  "whether_custom_field" : false,
  "start_time" : 0,
  "end_time" : 0,
  "time_range" : "30",
  "search" : "",
  "alarm_level_ids" : [ "Critical", "Major", "Minor", "Info" ],
  "sort" : {
    "order_by" : [ "starts_at" ],
    "order" : "desc"
  }
}
```

Example Responses

Status code: 200

The request is successful.

```
{
  "events" : [ {
    "annotations" : {
      "message" : "string",
      "log_info" : "string",
      "current_value" : "string"
    },
    "metadata" : {
      "event_type" : "string",
      "event_id" : "string",
      "event_severity" : "string",
      "event_name" : "string",
      "resource_type" : "string",
      "resource_id" : "string",
      "resource_provider" : "string",
      "lts_alarm_type" : "string"
    },
    "id" : "string",
    "type" : "string"
  } ],
  "page_info" : {
    "next_marker" : "string",
    "previous_marker" : "string",
    "current_count" : 0
  }
}
```

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SDK Sample Code

The SDK sample code is as follows.

Java

Query the active or historical alarm list.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class ListActiveOrHistoryAlarmsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListActiveOrHistoryAlarmsRequest request = new ListActiveOrHistoryAlarmsRequest();
        request.withDomainId("{domain_id}");
        try {
            ListActiveOrHistoryAlarmsResponse response = client.listActiveOrHistoryAlarms(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Query the active or historical alarm list.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
```

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```
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListActiveOrHistoryAlarmsRequest()
        request.domain_id = "{domain_id}"
        response = client.list_active_or_history_alarms(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Query the active or historical alarm list.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListActiveOrHistoryAlarmsRequest{}
    request.DomainId = "{domain_id}"
    response, err := client.ListActiveOrHistoryAlarms(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
```

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```
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	The request is successful.

Error Codes

See **Error Codes**.

6.14.2 Deleting an Active Alarm

Function

This API is used to delete an active alarm.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/{domain_id}/lts/alarms/sql-alarm/clear

Table 6-604 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**

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Parameter	Mandatory	Type	Description
domain_id	Yes	String	Account ID. For details about how to obtain an account ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**

Request Parameters

Table 6-605 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-606 Request body parameters

Parameter	Mandatory	Type	Description
events	Yes	Array of **Event** objects	Topic information.

Table 6-607 Event

Parameter	Mandatory	Type	Description
metadata	Yes	**Metadata** object	Alarm information. Minimum length: 0 Maximum length: 2,048
starts_at	Yes	Long	Alarm generation time (timestamp). Minimum: **0** Maximum: **32**

Table 6-608 Metadata

Parameter	Mandatory	Type	Description
event_type	Yes	String	**Definition** Alarm type. **Range** **alarm**
event_id	Yes	String	**Definition** Alarm rule ID. **Range** N/A
event_severity	Yes	String	**Definition** Alarm severity. **Range** • **Info** • **Minor** • **Major** • **Critical**

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Parameter	Mandatory	Type	Description
event_name	Yes	String	**Definition** Alarm rule name. **Range** N/A
resource_type	Yes	String	**Definition** Resource type. **Range** **Log group/stream**
resource_id	Yes	String	**Definition** Original log group/stream name. **Range** N/A
resource_provider	Yes	String	**Definition** Alarm source. **Range** **LTS**
lts_alarm_type	Yes	String	**Definition** Alarm rule type. **Range** • **sql**: SQL alarm rule • **keywords**: keyword alarm rule • **search_analysis**: Search | Analysis alarm rule
log_group_name	Yes	String	**Definition** Original log group name. **Range** N/A
log_stream_name	Yes	String	**Definition** Original log stream name. **Range** N/A

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Parameter	Mandatory	Type	Description
event_subtype	Yes	String	**Definition** Alarm type. **Range** • **sql**: SQL alarm rule • **keywords**: keyword alarm rule

Response Parameters

Status code: 200

The request is successful.

None

Example Requests

Deleting an active alarm by alarm ID

```
POST https://{endpoint}/v2/{project_id}/{domain_id}/lts/alarms/sql-alarm/clear

{
  "events" : [ {
    "metadata" : {
      "event_type" : "alarm",
      "event_id" : "1",
      "lts_alarm_type" : "keywords/sql",
      "resource_type" : "Log group/stream.",
      "event_severity" : "Critical",
      "resource_id" : "lts-group-demo/lts-topic-demo",
      "event_name" : "demo",
      "event_subtype" : "sql",
      "resource_provider" : "LTS",
      "log_group_name" : "lts-group-demo",
      "log_stream_name" : "lts-topic-demo"
    },
    "starts_at" : 1629947408497
  } ]
}
```

Example Responses

None

SDK Sample Code

The SDK sample code is as follows.

Java

Deleting an active alarm by alarm ID

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
```

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```
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class DeleteActiveAlarmsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");

        ICredential auth = new BasicCredentials()
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteActiveAlarmsRequest request = new DeleteActiveAlarmsRequest();
        request.withDomainId("{domain_id}");
        DeleteActiveAlarmsRequestBody body = new DeleteActiveAlarmsRequestBody();
        Metadata metadataEvents = new Metadata();
        metadataEvents.withEventType("alarm")
            .withEventId("1")
            .withEventSeverity("Critical")
            .withEventName("demo")
            .withResourceType("Log group/stream.")
            .withResourceId("lts-group-demo/lts-topic-demo")
            .withResourceProvider("LTS")
            .withLtsAlarmType("keywords/sql")
            .withLogGroupName("lts-group-demo")
            .withLogStreamName("lts-topic-demo");
        List<Event> listbodyEvents = new ArrayList<>();
        listbodyEvents.add(
            new Event()
                .withMetadata(metadataEvents)
                .withStartsAt(1629947408497L)
        );
        body.withEvents(listbodyEvents);
        request.withBody(body);
        try {
            DeleteActiveAlarmsResponse response = client.deleteActiveAlarms(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

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Python

Deleting an active alarm by alarm ID

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]

    credentials = BasicCredentials(ak, sk)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteActiveAlarmsRequest()
        request.domain_id = "{domain_id}"
        metadataEvents = Metadata(
            event_type="alarm",
            event_id="1",
            event_severity="Critical",
            event_name="demo",
            resource_type="Log group/stream.",
            resource_id="lts-group-demo/lts-topic-demo",
            resource_provider="LTS",
            lts_alarm_type="keywords/sql",
            log_group_name="lts-group-demo",
            log_stream_name="lts-topic-demo"
        )
        listEventsbody = [
            Event(
                metadata=metadataEvents,
                starts_at=1629947408497
            )
        ]
        request.body = DeleteActiveAlarmsRequestBody(
            events=listEventsbody
        )
        response = client.delete_active_alarms(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Deleting an active alarm by alarm ID

```
package main

import (
    "fmt"
```

```
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteActiveAlarmsRequest{}
    request.DomainId = "{domain_id}"
    logGroupNameMetadata:= "lts-group-demo"
    logStreamNameMetadata:= "lts-topic-demo"
    metadataEvents := &model.Metadata{
        EventType: "alarm",
        EventId: "1",
        EventSeverity: "Critical",
        EventName: "demo",
        ResourceType: "Log group/stream.",
        ResourceId: "lts-group-demo/lts-topic-demo",
        ResourceProvider: "LTS",
        LtsAlarmType: "keywords/sql",
        LogGroupName: &logGroupNameMetadata,
        LogStreamName: &logStreamNameMetadata,
    }
    var listEventsbody = []model.Event{
        {
            Metadata: metadataEvents,
            StartsAt: int64(1629947408497),
        },
    }
    request.Body = &model.DeleteActiveAlarmsRequestBody{
        Events: listEventsbody,
    }
    response, err := client.DeleteActiveAlarms(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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Status Codes

Status Code	Description
200	The request is successful.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.15 Tag Management

6.15.1 Creating Tags

Function

This API is used to create tags.

Calling Method

For details, see **Calling APIs**.

URI

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

Table 6-609 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**
resource_type	Yes	String	Resource type. The value can be **groups** or **topics**.
resource_id	Yes	String	Resource ID.

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Request Parameters

Table 6-610 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-611 Request body parameters

Parameter	Mandatory	Type	Description
action	Yes	String	Method of adding tags. Enumeration values: • **create** • **delete**
is_open	Yes	Boolean	Whether to call external APIs.
tags	Yes	Array of **tagsBody** objects	Tag field information.

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Table 6-612 tagsBody

Parameter	Mandatory	Type	Description
key	Yes	String	**Definition** Tag key. **Constraints** • Each tag key must be unique. • A tag is a key-value pair. Each key is paired with its corresponding value. **Range** Each tag key can contain up to 128 characters, including only letters, digits, spaces, and special characters (_.:=+-@). Do not start or end with a space, nor start with *sys*. **Default Value** N/A
value	No	String	**Definition** Tag value. **Constraints** A tag is a key-value pair. Each key is paired with its corresponding value. **Range** • A tag value can contain letters, digits, spaces, and special characters (_.:=+-@). • A tag value can contain up to 255 characters. **Default Value** N/A

Response Parameters

Status code: 200

Tags added.

Status code: 400

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Table 6-613 Response body parameters

Parameter	Type	Description
error_code	String	Error code. Minimum: **8** Maximum: **36**
error_msg	String	Error description. Minimum: **2** Maximum: **512**

Status code: 500

Table 6-614 Response body parameters

Parameter	Type	Description
error_code	String	Error code. Minimum: **8** Maximum: **36**
error_msg	String	Error description. Minimum: **2** Maximum: **512**

Example Requests

Creating tags

```
/v1/2a473356cca5487f8373be891bffc1cf/groups/0933a172-379e-44d0-9ed9-f491b1c528ea/tags/action

{
  "action" : "create",
  "is_open" : false,
  "tags" : [ {
    "key" : "zzz",
    "value" : "zzz"
  }, {
    "key" : "sgq",
    "value" : "123"
  } ]
}
```

Example Responses

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "error_code" : "LTS.1836",
```

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```
  "error_msg" : "action is create or delete"
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "error_code" : "LTS.0203",
  "error_msg" : "Internal Server Error"
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Creating tags

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class CreateTagsSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateTagsRequest request = new CreateTagsRequest();
        request.withResourceType("{resource_type}");
        request.withResourceId("{resource_id}");
        CreateTagsReqbody body = new CreateTagsReqbody();
        List<TagsBody> listbodyTags = new ArrayList<>();
        listbodyTags.add(
            new TagsBody()
                .withKey("zzz")
                .withValue("zzz")
        );
        listbodyTags.add(
            new TagsBody()
```

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```
                .withKey("sgq")
                .withValue("123")
        );
        body.withTags(listbodyTags);
        body.withIsOpen(false);
        body.withAction(CreateTagsReqbody.ActionEnum.fromValue("create"));
        request.withBody(body);
        try {
            CreateTagsResponse response = client.createTags(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Creating tags

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateTagsRequest()
        request.resource_type = "{resource_type}"
        request.resource_id = "{resource_id}"
        listTagsbody = [
            TagsBody(
                key="zzz",
                value="zzz"
            ),
            TagsBody(
                key="sgq",
                value="123"
            )
        ]
        request.body = CreateTagsReqbody(
            tags=listTagsbody,
```

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```
            is_open=False,
            action="create"
        )
        response = client.create_tags(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Creating tags

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateTagsRequest{}
    request.ResourceType = "{resource_type}"
    request.ResourceId = "{resource_id}"
    keyTags:= "zzz"
    valueTags:= "zzz"
    keyTags1:= "sgq"
    valueTags1:= "123"
    var listTagsbody = []model.TagsBody{
        {
            Key: &keyTags,
            Value: &valueTags,
        },
        {
            Key: &keyTags1,
            Value: &valueTags1,
        },
    }
    request.Body = &model.CreateTagsReqbody{
        Tags: listTagsbody,
        IsOpen: false,
        Action: model.GetCreateTagsReqbodyActionEnum().CREATE,
    }
```

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```
    response, err := client.CreateTags(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Tags added.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.16 Dashboard Management

6.16.1 Creating a Dashboard Group

Function

This API is used to create a dashboard group.

Calling Method

For details, see **Calling APIs**.

URI

POST /v2/{project_id}/lts/dashboard-group

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Table 6-615 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**

Request Parameters

Table 6-616 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-617 Request body parameters

Parameter	Mandatory	Type	Description
group_name	Yes	String	Dashboard group name.

Response Parameters

Status code: 201

Table 6-618 Response body parameters

Parameter	Type	Description
result	String	Response result.

Status code: 400

Table 6-619 Response body parameters

Parameter	Type	Description
message	**ErrorMessagebody** object	**Definition** Error details.

Table 6-620 ErrorMessagebody

Parameter	Type	Description
code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
details	String	**Definition** Error message. **Range** N/A

Status code: 500

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Table 6-621 Response body parameters

Parameter	Type	Description
message	**ErrorMessagebody** object	**Definition** Error details.

Table 6-622 ErrorMessagebody

Parameter	Type	Description
code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
details	String	**Definition** Error message. **Range** N/A

Example Requests

Creating a Dashboard Group

```
/v2/2a473356cca5487f8373be891bffc1cf/lts/dashboard-group

{
  "group_name" : "sgqtest"
}
```

Example Responses

Status code: 201

Dashboard group created.

```
{
  "result" : "success"
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "message" : {
    "code" : "LTS.2111",
    "details" : "Log dashboard group name is already exist"
  }
}
```

Status code: 500

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The server has received the request but encountered an internal error.

```
{
  "message" : {
    "code" : "LTS.0203",
    "details" : "Internal Server Error"
  }
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Creating a Dashboard Group

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class CreateDashboardGroupSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateDashboardGroupRequest request = new CreateDashboardGroupRequest();
        CreateDashboardGroupReq body = new CreateDashboardGroupReq();
        body.withGroupName("sgqtest");
        request.withBody(body);
        try {
            CreateDashboardGroupResponse response = client.createDashboardGroup(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
```

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```
        }
    }
}
```

Python

Creating a Dashboard Group

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateDashboardGroupRequest()
        request.body = CreateDashboardGroupReq(
            group_name="sgqtest"
        )
        response = client.create_dashboard_group(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Creating a Dashboard Group

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
```

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```
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateDashboardGroupRequest{}
    request.Body = &model.CreateDashboardGroupReq{
        GroupName: "sgqtest",
    }
    response, err := client.CreateDashboardGroup(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
201	Dashboard group created.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.16.2 Creating a Dashboard

Function

This API is used to create a dashboard.

Calling Method

For details, see **Calling APIs**.

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URI

POST /v2/{project_id}/dashboard

Table 6-623 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**

Request Parameters

Table 6-624 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-625 Request body parameters

Parameter	Mandatory	Type	Description
group_name	No	String	Dashboard group name.
title	Yes	String	Dashboard name.

Response Parameters

Status code: 201

Table 6-626 Response body parameters

Parameter	Type	Description
charts	Array of strings	Charts in the dashboard.
filters	Array of strings	Filter criteria.
group_name	String	Log group name.
id	String	Dashboard ID.
last_update_time	Long	Last modification time.
project_id	String	Project ID.
title	String	Dashboard name.
useSystemTemplate	Boolean	Whether to use the template.
concise_mode_enable	String	Lite mode switch.
tags	Array of **ResourceTag** objects	Dashboard tag.

Table 6-627 ResourceTag

Parameter	Type	Description
key	String	Tag key.
value	String	Tag value.
tags_to_streams_enable	String	Whether to enable the log stream tag.

Status code: 400

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Table 6-628 Response body parameters

Parameter	Type	Description
message	**ErrorMessagebody** object	**Definition** Error details.

Table 6-629 ErrorMessagebody

Parameter	Type	Description
code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
details	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-630 Response body parameters

Parameter	Type	Description
message	**ErrorMessagebody** object	**Definition** Error details.

Table 6-631 ErrorMessagebody

Parameter	Type	Description
code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A

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Parameter	Type	Description
details	String	**Definition** Error message. **Range** N/A

Example Requests

Parameters for creating a dashboard. group_name is optional.

```
/v2/2a473356cca5487f8373be891bffc1cf/dashboard

{
  "group_name" : "sgqtest",
  "title" : "sgqtest1"
}
```

Example Responses

Status code: 201

Dashboard created.

```
{
  "charts" : [ ],
  "filters" : [ ],
  "group_name" : "",
  "id" : "2bf23310-83c2-4962-898f-79ebd057a256",
  "last_update_time" : 1669637866189,
  "project_id" : "2a473356cca5487f8373be891bffc1cf",
  "title" : "test",
  "useSystemTemplate" : false
}
```

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "message" : {
    "code" : "LTS.0736",
    "details" : "The number of log dashboards exceeds the maximum"
  }
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "message" : {
    "code" : "LTS.0203",
    "details" : "Internal Server Error"
  }
}
```

SDK Sample Code

The SDK sample code is as follows.

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Java

Parameters for creating a dashboard. group_name is optional.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class CreateDashBoardSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateDashBoardRequest request = new CreateDashBoardRequest();
        CreateDashBoardReqBody body = new CreateDashBoardReqBody();
        body.withTitle("sgqtest1");
        body.withGroupName("sgqtest");
        request.withBody(body);
        try {
            CreateDashBoardResponse response = client.createDashBoard(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Parameters for creating a dashboard. group_name is optional.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
```

```
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateDashBoardRequest()
        request.body = CreateDashBoardReqBody(
            title="sgqtest1",
            group_name="sgqtest"
        )
        response = client.create_dash_board(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Parameters for creating a dashboard. group_name is optional.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())
```

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```
    request := &model.CreateDashBoardRequest{}
    groupNameCreateDashBoardReqBody:= "sgqtest"
    request.Body = &model.CreateDashBoardReqBody{
        Title: "sgqtest1",
        GroupName: &groupNameCreateDashBoardReqBody,
    }
    response, err := client.CreateDashBoard(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
201	Dashboard created.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.17 Log Charts

6.17.1 Querying a Log Stream Chart

Function

This API is used to query a log flow chart.

Calling Method

For details, see **Calling APIs**.

URI

GET /v2/{project_id}/groups/{log_group_id}/streams/{log_stream_id}/charts

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Table 6-632 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**
log_group_id	Yes	String	Log group ID. For details about how to obtain a log group ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **36** Maximum: **36**
log_stream_id	Yes	String	Log stream ID. For details about how to obtain a log stream ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **36** Maximum: **36**

Table 6-633 Query Parameters

Parameter	Mandatory	Type	Description
offset	No	Integer	Query cursor. Set the value to 0 in the first query. In subsequent queries, obtain the value from the response to the last request. Minimum: **0** Maximum: **1024**
limit	No	Integer	Number of records on each page. The maximum value is 100. Minimum: **0** Maximum: **100**

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Request Parameters

Table 6-634 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

Table 6-635 Response body parameters

Parameter	Type	Description
id	String	id Minimum: **36** Maximum: **36**
sql	String	SQL statement. Minimum: **1** Maximum: **1024**

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Parameter	Type	Description
title	String	Chart name. Minimum: **1** Maximum: **64**
type	String	Chart type. Enumeration values: • **table** • **bar** • **line** • **pie** • **number**
log_group_id	String	Log group ID. Minimum: **36** Maximum: **36**
log_group_name	String	Log group name. Minimum: **1** Maximum: **64**
log_stream_id	String	Log group ID. Minimum: **32** Maximum: **32**
log_stream_name	String	Log stream name. Minimum: **1** Maximum: **64**
config	**ChartConfig** object	Chart configuration details.

Table 6-636 ChartConfig

Parameter	Type	Description
canSort	Boolean	Whether to enable sorting.
canSearch	Boolean	Whether to enable search.
pageSize	Integer	Number of records on each page. Minimum: **0** Maximum: **100**

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Example Requests

Querying a log stream chart

```
GET https://{endpoint}/v2/{project_id}/groups/{log_group_id}/streams/{log_stream_id}/charts

/v2/{project_id}/groups/{log_group_id}/streams/{log_stream_id}/charts
```

Example Responses

Status code: 200

The request is successful.

```
{
  "id" : "string",
  "sql" : "string",
  "title" : "string",
  "type" : "table",
  "log_group_id" : "string",
  "log_group_name" : "string",
  "log_stream_id" : "string",
  "log_stream_name" : "string",
  "config" : {
    "canSort" : true,
    "canSearch" : true,
    "pageSize" : 0
  }
}
```

Status Codes

Status Code	Description
200	The request is successful.

Error Codes

See **Error Codes**.

6.18 Quick Search

6.18.1 Querying Historical SQL Statements

Function

This API is used to query historical SQL statements.

Calling Method

For details, see **Calling APIs**.

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URI

GET /v2/{project_id}/lts/history-sql

Table 6-637 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **32** Maximum: **32**

Table 6-638 Query Parameters

Parameter	Mandatory	Type	Description
log_group_id	Yes	String	Log group ID. For details about how to obtain a log group ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **36** Maximum: **36**
log_stream_id	Yes	String	Log stream ID. For details about how to obtain a log stream ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**. Minimum: **36** Maximum: **36**

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Request Parameters

Table 6-639 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

Table 6-640 Response body parameters

Parameter	Type	Description
results	Array of **QuertHistorySQLResultsBody** objects	Response result.

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Table 6-641 QuertHistorySQLResultsBody

Parameter	Type	Description
last_use_time	Long	Last modification time. The value is a timestamp, in milliseconds.
sql_statement	String	Historical SQL statements.

Status code: 400

Table 6-642 Response body parameters

Parameter	Type	Description
message	**ErrorMessagebody** object	**Definition** Error details.

Table 6-643 ErrorMessagebody

Parameter	Type	Description
code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
details	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-644 Response body parameters

Parameter	Type	Description
message	**ErrorMessagebody** object	**Definition** Error details.

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Table 6-645 ErrorMessagebody

Parameter	Type	Description
code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
details	String	**Definition** Error message. **Range** N/A

Example Requests

Querying Historical SQL Statements

```
/v2/2a473356cca5487f8373be891bffc1cf/lts/history-sql?log_group_id=d1f4240d-5ee2-4e0b-9e2c-e25c7978c001&log_stream_id=f3d853be-0576-4dff-aee9-c093e4924b63
```

Example Responses

Status code: 200

SQL statements queried.

```
{
  "results" : [ {
    "last_use_time" : 1669689650936,
    "sql_statement" : "SELECT *"
  }, {
    "last_use_time" : 1666775421613,
    "sql_statement" : "select count(\"t\") as pv"
  }, {
    "last_use_time" : 1666661494805,
    "sql_statement" : "SELECT count(\"time\")"
  }, {
    "last_use_time" : 1666598233252,
    "sql_statement" : "SELECT count(\"t\") as pv"
  }, {
    "last_use_time" : 1666598226763,
    "sql_statement" : "SELECT count(\"t\") "
  }, {
    "last_use_time" : 1666598222298,
    "sql_statement" : "SELECT count(\"t\") as pv"
  }, {
    "last_use_time" : 1666598221585,
    "sql_statement" : "SELECT count(\"t\") as p"
  }, {
    "last_use_time" : 1666598220276,
    "sql_statement" : "SELECT count(\"t\") as "
  }, {
    "last_use_time" : 1666598212453,
    "sql_statement" : "SELECT count(\"t\")"
  } ]
}
```

Status code: 400

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Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "message" : {
    "code" : "LTS.0603",
    "details" : "group or stream not exist"
  }
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "message" : {
    "code" : "LTS.0203",
    "details" : "Internal Server Error"
  }
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class ListHistorySqlSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListHistorySqlRequest request = new ListHistorySqlRequest();
        try {
            ListHistorySqlResponse response = client.listHistorySql(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
```

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```
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListHistorySqlRequest()
        response = client.list_history_sql(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"
```

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```
    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListHistorySqlRequest{}
    response, err := client.ListHistorySql(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	SQL statements queried.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.18.2 Adding a Quick Search

Function

This API is used to add a quick search.

Calling Method

For details, see **Calling APIs**.

URI

POST /v1.0/{project_id}/groups/{group_id}/topics/{topic_id}/search-criterias

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Table 6-646 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A
group_id	Yes	String	**Definition** ID of the log group to which the log stream to be queried belongs. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A
topic_id	Yes	String	**Definition** Log stream ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Request Parameters

Table 6-647 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-648 Request body parameters

Parameter	Mandatory	Type	Description
criteria	Yes	String	**Definition** Quick search statement. Keyword that needs to be repeatedly used during log search, for example, error*. **Constraints** N/A **Range** A maximum of 128 characters is allowed. **Default Value** N/A

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Parameter	Mandatory	Type	Description
eps_id	No	String	**Definition** Enterprise project ID. For details about how to obtain it, see **Obtaining an Enterprise Project ID**. **Constraints** N/A **Range** N/A **Default Value** **default**
name	Yes	String	**Definition** Quick search name. **Constraints** • Use only letters, digits, hyphens (-), underscores (_), and periods (.). • Do not start with a period (.) or underscore (_), or end with a period (.). • Enter 1 to 64 characters. **Range** N/A **Default Value** N/A
search_type	Yes	String	**Definition** Quick search type. **Constraints** N/A **Range** • **ORIGINALLOG**: raw logs • **VISUALIZATION**: visualized logs **Default Value** N/A

Response Parameters

Status code: 201

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Table 6-649 Response body parameters

Parameter	Type	Description
id	String	**Definition** Quick search ID. **Range** N/A

Status code: 400

Table 6-650 Response body parameters

Parameter	Type	Description
message	**ErrorMessagebody** object	**Definition** Error details.

Table 6-651 ErrorMessagebody

Parameter	Type	Description
code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
details	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-652 Response body parameters

Parameter	Type	Description
message	**ErrorMessagebody** object	**Definition** Error details.

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Table 6-653 ErrorMessagebody

Parameter	Type	Description
code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
details	String	**Definition** Error message. **Range** N/A

Example Requests

Add a quick search.

```
/v1.0/2a473356cca5487f8373be891bffc1cf/groups/d1f4240d-5ee2-4e0b-9e2c-e25c7978c001/topics/2b899d46-218c-4f0c-8ace-a36a290a83a0/search-criterias

{
  "name" : "Creating a Number",
  "criteria" : "content : 12345678912345678912345678912
```

```
 }
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Add a quick search.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class CreateSearchCriteriasSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        CreateSearchCriteriasRequest request = new CreateSearchCriteriasRequest();
        request.withGroupId("{group_id}");
        request.withTopicId("{topic_id}");
        CreateSearchCriteriasBody body = new CreateSearchCriteriasBody();
        body.withSearchType("ORIGINALLOG");
        body.withName("Creating a Number");
        body.withEpsId("0");
        body.withCriteria("content : 1234567891234567891234567891234567891234567891234567891234567894");
        request.withBody(body);
        try {
            CreateSearchCriteriasResponse response = client.createSearchCriterias(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
```

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```
        }
    }
}
```

Python

Add a quick search.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = CreateSearchCriteriasRequest()
        request.group_id = "{group_id}"
        request.topic_id = "{topic_id}"
        request.body = CreateSearchCriteriasBody(
            search_type="ORIGINALLOG",
            name="Creating a Number",
            eps_id="0",
            criteria="content : 12345678912345678912345678912
```

```
variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.CreateSearchCriteriasRequest{}
    request.GroupId = "{group_id}"
    request.TopicId = "{topic_id}"
    epsIdCreateSearchCriteriasBody:= "0"
    request.Body = &model.CreateSearchCriteriasBody{
        SearchType: "ORIGINALLOG",
        Name: "Creating a Number",
        EpsId: &epsIdCreateSearchCriteriasBody,
        Criteria: "content : 12345678912345678912345678912
```

6.18.3 Obtaining a Quick Search

Function

This API is used to obtain a quick search.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1.0/{project_id}/groups/{group_id}/topics/{topic_id}/search-criterias

Table 6-654 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A
group_id	Yes	String	**Definition** ID of the log group to which the log stream to be queried belongs. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
topic_id	Yes	String	**Definition** Log stream ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-655 Query Parameters

Parameter	Mandatory	Type	Description
search_type	No	String	**Definition** Quick search type. **Constraints** N/A **Range** • **ORIGINALLOG**: raw logs • **VISUALIZATION**: visualized logs **Default Value** N/A

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Request Parameters

Table 6-656 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

Table 6-657 Response body parameters

Parameter	Type	Description
search_criterias	Array of **GetQuerySearchCriteriasBody** objects	**Definition** Details of quick search.

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Table 6-658 GetQuerySearchCriteriasBody

Parameter	Type	Description
criteria	String	**Definition** Quick search content. Generally, it is a SQL statement or keyword query statement for visualization. **Range** N/A
name	String	**Definition** Quick search name. **Range** N/A
id	String	**Definition** Quick search ID. **Range** N/A
search_type	String	**Definition** Quick search content. Generally, it is a SQL statement or keyword query statement for visualization. **Range** • **ORIGINALLOG**: log search • **VISUALIZATION**: log analysis • **SEARCHANALYSIS**: statistical chart

Status code: 400

Table 6-659 Response body parameters

Parameter	Type	Description
message	**ErrorMessagebody** object	**Definition** Error details.

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Table 6-660 ErrorMessagebody

Parameter	Type	Description
code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
details	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-661 Response body parameters

Parameter	Type	Description
message	**ErrorMessagebody** object	**Definition** Error details.

Table 6-662 ErrorMessagebody

Parameter	Type	Description
code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
details	String	**Definition** Error message. **Range** N/A

Example Requests

Obtain a quick search.

```
/v1.0/2a473356cca5487f8373be891bffc1cf/groups/d1f4240d-5ee2-4e0b-9e2c-e25c7978c001/topics/2b899d46-218c-4f0c-8ace-a36a290a83a0/search-criterias?search_type=ORIGINALLOG
```

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```
search_type:
ORIGINALLOG
```

Example Responses

Status code: 200

The quick search is obtained.

```
{
  "search_criterias" : [ {
    "criteria" : "content : 12345678912345678912345678912
```

6.18.4 Deleting a Quick Search

Function

This API is used to delete a quick search.

Calling Method

For details, see **Calling APIs**.

URI

DELETE /v1.0/{project_id}/groups/{group_id}/topics/{topic_id}/search-criterias

Table 6-663 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A
group_id	Yes	String	**Definition** Log group ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
topic_id	Yes	String	**Definition** Log stream ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-664 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Table 6-665 Request body parameters

Parameter	Mandatory	Type	Description
eps_id	No	String	**Definition** Enterprise project ID. For details about how to obtain it, see **Obtaining an Enterprise Project ID**. **Constraints** N/A **Range** N/A **Default Value** **default**
id	Yes	String	**Definition** Quick search ID. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 204

The quick search is deleted.

Status code: 400

Table 6-666 Response body parameters

Parameter	Type	Description
message	**ErrorMessagebody** object	**Definition** Error details.

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Table 6-667 ErrorMessagebody

Parameter	Type	Description
code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
details	String	**Definition** Error message. **Range** N/A

Status code: 500

Table 6-668 Response body parameters

Parameter	Type	Description
message	**ErrorMessagebody** object	**Definition** Error details.

Table 6-669 ErrorMessagebody

Parameter	Type	Description
code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
details	String	**Definition** Error message. **Range** N/A

Example Requests

Query a quick search.

```
/v1.0/2a473356cca5487f8373be891bffc1cf/groups/d1f4240d-5ee2-4e0b-9e2c-e25c7978c001/topics/2b899d46-218c-4f0c-8ace-a36a290a83a0/search-criterias
```

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```
{
  "id" : "345d2276-1ae8-4495-a6ee-bf77c2e5ffb9",
  "epsId" : "0"
}
```

Example Responses

Status code: 204

The quick search is deleted.

Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "message" : {
    "code" : "LTS.0208",
    "details" : "The log stream does not existed"
  }
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "message" : {
    "code" : "LTS.0203",
    "details" : "Internal Server Error"
  }
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

Query a quick search.

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class DeleteSearchCriteriasSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
```

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```
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        DeleteSearchCriteriasRequest request = new DeleteSearchCriteriasRequest();
        request.withGroupId("{group_id}");
        request.withTopicId("{topic_id}");
        DeleteSearchCriterias body = new DeleteSearchCriterias();
        body.withId("345d2276-1ae8-4495-a6ee-bf77c2e5ffb9");
        request.withBody(body);
        try {
            DeleteSearchCriteriasResponse response = client.deleteSearchCriterias(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

Query a quick search.

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = DeleteSearchCriteriasRequest()
        request.group_id = "{group_id}"
        request.topic_id = "{topic_id}"
        request.body = DeleteSearchCriterias(
            id="345d2276-1ae8-4495-a6ee-bf77c2e5ffb9"
```

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```
        )
        response = client.delete_search_criterias(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

Query a quick search.

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.DeleteSearchCriteriasRequest{}
    request.GroupId = "{group_id}"
    request.TopicId = "{topic_id}"
    request.Body = &model.DeleteSearchCriterias{
        Id: "345d2276-1ae8-4495-a6ee-bf77c2e5ffb9",
    }
    response, err := client.DeleteSearchCriterias(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

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Status Codes

Status Code	Description
204	The quick search is deleted.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.18.5 Querying All Quick Searches in a Log Group

Function

Query all quick searches in a log group.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1.0/{project_id}/lts/groups/{group_id}/search-criterias

Table 6-670 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	**Definition** Project ID. It can be obtained by calling an API or from the console. For details, see **Obtaining a Project ID**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
group_id	Yes	String	**Definition** Log group ID. For details about how to obtain it, see **Obtaining Log Group and Log Stream IDs**. **Constraints** N/A **Range** N/A **Default Value** N/A

Request Parameters

Table 6-671 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Response Parameters

Status code: 200

Table 6-672 Response body parameters

Parameter	Type	Description
search_criterias	Array of **search_criteriasBody** objects	**Definition** Details of quick search.

Table 6-673 search_criteriasBody

Parameter	Type	Description
criterias	Array of **GetQuerySearchCriteriasBody** objects	**Definition** Quick search of a single log stream.
log_stream_id	String	**Definition** Log stream ID. **Range** N/A
log_stream_name	String	**Definition** Log stream name. **Range** N/A
search_type	String	**Definition** Quick search type. **Range** • **ORIGINALLOG**: raw logs • **VISUALIZATION**: visualized logs

Table 6-674 GetQuerySearchCriteriasBody

Parameter	Type	Description
criteria	String	**Definition** Quick search content. Generally, it is a SQL statement or keyword query statement for visualization. **Range** N/A

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Parameter	Type	Description
name	String	**Definition** Quick search name. **Range** N/A
id	String	**Definition** Quick search ID. **Range** N/A
search_type	String	**Definition** Quick search content. Generally, it is a SQL statement or keyword query statement for visualization. **Range** • **ORIGINALLOG**: log search • **VISUALIZATION**: log analysis • **SEARCHANALYSIS**: statistical chart

Status code: 400

Table 6-675 Response body parameters

Parameter	Type	Description
message	**ErrorMessagebody** object	**Definition** Error details.

Table 6-676 ErrorMessagebody

Parameter	Type	Description
code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
details	String	**Definition** Error message. **Range** N/A

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Status code: 500

Table 6-677 Response body parameters

Parameter	Type	Description
message	**ErrorMessagebody** object	**Definition** Error details.

Table 6-678 ErrorMessagebody

Parameter	Type	Description
code	String	**Definition** Error code. For details, see **Error Codes**. **Range** N/A
details	String	**Definition** Error message. **Range** N/A

Example Requests

Query all quick searches in a log group.

```
/v1.0/2a47xxxxxxxxx7f8373be891bffc1cf/lts/groups/d1f4240d-xxxx-xxxx-xxxx-e25c7978c001/search-criterias
```

Example Responses

Status code: 200

Query succeeded.

```
{
  "search_criterias" : [ {
    "criterias" : [ {
      "criteria" : "234",
      "name" : "234",
      "id" : "aee53496-xxxx-xxxx-xxxx-5a83d1aae134",
      "search_type" : "ORIGINALLOG"
    }, {
      "criteria" : "24",
      "name" : "2342",
      "id" : "939c930a-xxxx-xxxx-xxxx-a3040d857ce1",
      "search_type" : "ORIGINALLOG"
    } ],
    "log_stream_id" : "85025a4b-xxxx-xxxx-xxxx-2b6851d84ea2",
    "log_stream_name" : "lts-test-topic",
    "search_type" : "ORIGINALLOG"
  } ]
}
```

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Status code: 400

Invalid request. Modify the request based on the description in **error_msg** before a retry.

```
{
  "message" : {
    "code" : "LTS.0201",
    "details" : "The log group does not existed"
  }
}
```

Status code: 500

The server has received the request but encountered an internal error.

```
{
  "message" : {
    "code" : "LTS.0203",
    "details" : "Internal Server Error"
  }
}
```

SDK Sample Code

The SDK sample code is as follows.

Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;


public class ListQueryAllSearchCriteriasSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        ListQueryAllSearchCriteriasRequest request = new ListQueryAllSearchCriteriasRequest();
        request.withGroupId("{group_id}");
        try {
            ListQueryAllSearchCriteriasResponse response = client.listQueryAllSearchCriterias(request);
            System.out.println(response.toString());
```

```
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = ListQueryAllSearchCriteriasRequest()
        request.group_id = "{group_id}"
        response = client.list_query_all_search_criterias(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this
```

```
example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.ListQueryAllSearchCriteriasRequest{}
    request.GroupId = "{group_id}"
    response, err := client.ListQueryAllSearchCriterias(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Query succeeded.
400	Invalid request. Modify the request based on the description in **error_msg** before a retry.
500	The server has received the request but encountered an internal error.

Error Codes

See **Error Codes**.

6.19 Multi-Account Log Aggregation

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6.19.1 Obtaining the Log Aggregation Switch Status

Function

This API can be called only by administrators or delegated administrators to obtain the status of the log aggregation switch.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/lts/log-converge-config/switch

Table 6-679 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**.

Request Parameters

Table 6-680 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A

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Parameter	Mandatory	Type	Description
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

Table 6-681 Response body parameters

Parameter	Type	Description
log_converge_switch	Boolean	Log aggregation switch.

Status code: 400

Table 6-682 Response body parameters

Parameter	Type	Description
error_code	String	Error code. Minimum: **8** Maximum: **36**
error_msg	String	Error description. Minimum: **2** Maximum: **512**

Example Requests

Obtain the log aggregation switch status.

```
GET https://{endpoint}/v1/{project_id}/lts/log-converge-config/switch

/v1/{project_id}/lts/log-converge-config/switch
```

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Example Responses

Status code: 200

Query succeeded.

```
{
  "log_converge_switch" : true
}
```

Status Codes

Status Code	Description
200	Query succeeded.
400	Error response

Error Codes

See **Error Codes**.

6.19.2 Modifying the Log Aggregation Switch Status

Function

This API can be called only by administrators or delegated administrators to modify the status of the log aggregation switch.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v1/{project_id}/lts/log-converge-config/switch

Table 6-683 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**.

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Table 6-684 Query Parameters

Parameter	Mandatory	Type	Description
log_converge_switch	Yes	String	Switch parameters

Request Parameters

Table 6-685 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

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Table 6-686 Response body parameters

Parameter	Type	Description
result	String	Result of modifying the log aggregation switch

Status code: 400

Table 6-687 Response body parameters

Parameter	Type	Description
error_code	String	Error code. Minimum: **8** Maximum: **36**
error_msg	String	Error description. Minimum: **2** Maximum: **512**

Example Requests

Log aggregation is enabled.

```
PUT https://{endpoint}/v1/{project_id}/lts/log-converge-config/switch

/v1/{project_id}/lts/log-converge-config/switch?log_converge_switch=true
```

Example Responses

Status code: 200

Response body for modifying the log aggregation switch

```
{
  "result" : "success"
}
```

Status Codes

Status Code	Description
200	Response body for modifying the log aggregation switch
400	Error response

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Error Codes

See **Error Codes**.

6.19.3 Obtaining the Aggregation Settings of an Organization Member

Function

This API can be called only by organization administrators or delegated administrators to obtain the aggregation settings of an organization member.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/lts/log-converge-config/{member_account_id}

Table 6-688 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**.
member_account_id	Yes	String	Member account ID.

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Request Parameters

Table 6-689 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

Table 6-690 Response body parameters

Parameter	Type	Description
id	String	ID
member_account_id	String	Account ID of an organization member.
member_project_id	String	Project ID of an administrator or delegated administrator.
create_time	Long	Creation time.
update_time	Long	Update time.

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Parameter	Type	Description
status	String	**creating**: The configuration is being created. **done**: The configuration has been created. Enumeration values: • **creating** • **done**
organization_id	String	Organization ID.
management_account_id	String	Account ID of an administrator or delegated administrator.
management_project_id	String	Administrator project ID.
version	String	Version.
log_mapping_config	Array of **LogMappingConfig** objects	Log aggregation configuration.

Table 6-691 LogMappingConfig

Parameter	Type	Description
source_log_group_id	String	Source log group ID.
target_log_group_id	String	Target log group ID.
target_log_group_name	String	Target log group name.
log_stream_config	Array of **LogMappingStreamInfo** objects	Log stream configuration.

Table 6-692 LogMappingStreamInfo

Parameter	Type	Description
source_log_stream_id	String	Source log stream ID.
target_log_stream_id	String	Target log stream ID.

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Parameter	Type	Description
target_log_stream_name	String	Target log stream name.
target_log_stream_eps_id	String	Target log stream EPS ID.
target_log_stream_ttl	Integer	Time to live (TTL) storage duration of the target log stream, in days. Minimum: **1** Maximum: **30**

Status code: 400

Table 6-693 Response body parameters

Parameter	Type	Description
error_code	String	Error code. Minimum: **8** Maximum: **36**
error_msg	String	Error description. Minimum: **2** Maximum: **512**

Example Requests

Obtain the aggregation settings of an organization member.

```
GET https://{endpoint}/v1/{project_id}/lts/log-converge-config/{member_account_id}

/v1/{project_id}/lts/log-converge-config/{member_account_id}
```

Example Responses

Status code: 200

Delete result

```
{
  "create_time" : 1694423493108,
  "id" : "f5b6b235-48a2-473c-a1fa-4ddba9ca86d8",
  "log_mapping_config" : [ {
    "log_stream_config" : [ {
      "source_log_stream_id" : "55b33967-1971-4521-bf5a-e53e981f3d08",
      "target_log_stream_eps_id" : "0",
      "target_log_stream_id" : "ebaf8e21-dba6-4697-99b2-6811f109d03f",
      "target_log_stream_name" : "stdout-test_huiju",
      "target_log_stream_ttl" : 180
    } ],
    "source_log_group_id" : "c59e2705-5bbf-4f55-8861-92d4e7e7d33f",
```

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```
    "target_log_group_id" : "5adb3025-e663-4cf4-bcf7-7340e79cdbd3",
    "target_log_group_name" : "k8s-log-test_paas_apm_z0041xxxx_01"
  }, {
    "log_stream_config" : [ {
      "source_log_stream_id" : "b77c9164-b411-42f4-9d4c-2ca7115496b7",
      "target_log_stream_eps_id" : "0",
      "target_log_stream_id" : "7120856a-bf15-4f92-8f08-b64bba8c81b1",
      "target_log_stream_name" : "stdout-test_huiju",
      "target_log_stream_ttl" : 180
    } ],
    "source_log_group_id" : "77f7e0fc-0ad0-4af0-b1e9-198007d5f993",
    "target_log_group_id" : "f8076177-c903-4dcf-85d5-dca9d13e591e",
    "target_log_group_name" : "k8s-log-stest_paas_apm_z0041xxxx_01"
  } ],
  "management_account_id" : "115ba1c5fec44839820795ebefe25f2a",
  "management_project_id" : "a5baef478e6840dc9f454bbc00c996c6",
  "member_account_id" : "1d26cc8c86a840e28a4f8d0d07852f1d",
  "member_project_id" : "2a473356cca5487f8373be891bffc1cf",
  "organization_id" : "o-fa9h4ghf0hnpfnq4xd02tah2nxmtugrf",
  "status" : "done"
}
```


Status code: 400

Error response


```
""
```


Status Codes

Status Code	Description
200	Delete result
400	Error response

Error Codes

See **Error Codes**.

6.19.4 Obtaining the Log Groups and Log Streams of an Organization Member

Function

This API can be called only by administrators or delegated administrators to obtain the log groups and log streams of an organization member.

Calling Method

For details, see **Calling APIs**.

URI

GET /v1/{project_id}/lts/{member_account_id}/all-streams

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Table 6-694 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**.
member_account_id	Yes	String	Member account ID.

Request Parameters

Table 6-695 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Response Parameters

Status code: 200

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Table 6-696 Response body parameters

Parameter	Type	Description
results	Array of **results** objects	Result of obtaining the log groups and log streams of an organization member

Table 6-697 results

Parameter	Type	Description
log_group_id	String	Log group ID.
log_group_name	String	Log group name.
log_streams	Array of **log_streams** objects	Log stream.

Table 6-698 log_streams

Parameter	Type	Description
log_stream_name	String	Log stream name.
log_stream_id	String	Log stream ID.

Status code: 400

Table 6-699 Response body parameters

Parameter	Type	Description
error_code	String	Error code. Minimum: **8** Maximum: **36**
error_msg	String	Error description. Minimum: **2** Maximum: **512**

Example Requests

```
GET https://{endpoint}/v1/{project_id}/lts/{member_account_id}/all-streams

/v1/{project_id}/lts/{member_account_id}/all-streams
```

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Example Responses

Status code: 200

Log groups and log streams of an organization member

```
{
  "results" : [ {
    "log_group_name" : "cuiss",
    "log_streams" : [ {
      "log_stream_name" : "wjyTest",
      "log_stream_id" : "d67124ed-b4bd-4d89-8646-5905c2eeaa62"
    } ],
    "log_group_id" : "d6c04fe9-170a-4d98-94e6-7844f47bd0b8"
  } ]
}
```

Status Codes

Status Code	Description
200	Log groups and log streams of an organization member
400	Error response

Error Codes

See **Error Codes**.

6.19.5 Updating Aggregation Configurations

Function

This API can be called only by administrators or delegated administrators to update aggregation configurations.

Calling Method

For details, see **Calling APIs**.

URI

PUT /v1/{project_id}/lts/log-converge-config

Table 6-700 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details about how to obtain a project ID, see **Obtaining the Project ID, Account ID, Log Group ID, and Log Stream ID**.

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Request Parameters

Table 6-701 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	**Definition** User token obtained from IAM. For details about how to obtain it, see **Obtaining a User Token**. **Constraints** N/A **Range** N/A **Default Value** N/A
Content-Type	Yes	String	**Definition** Message body format. Set this parameter to **application/json;charset=utf8**. **Constraints** N/A **Range** N/A **Default Value** N/A

Table 6-702 Request body parameters

Parameter	Mandatory	Type	Description
id	No	String	ID
member_account_id	Yes	String	Account ID of an organization member.
member_project_id	No	String	Project ID of an organization member.
create_time	No	Long	Creation time.
update_time	No	Long	Update time.
status	No	String	Status.

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Parameter	Mandatory	Type	Description
organization_id	Yes	String	Organization ID.
management_account_id	Yes	String	Account ID of an administrator or delegated administrator.
management_project_id	Yes	String	Project ID of an administrator or delegated administrator.
version	No	String	Version.
log_mapping_config	No	Array of **LogMappingConfig** objects	Log aggregation configuration.

Table 6-703 LogMappingConfig

Parameter	Mandatory	Type	Description
source_log_group_id	Yes	String	Source log group ID.
target_log_group_id	No	String	Target log group ID.
target_log_group_name	Yes	String	Target log group name.
log_stream_config	No	Array of **LogMappingStreamInfo** objects	Log stream configuration.

Table 6-704 LogMappingStreamInfo

Parameter	Mandatory	Type	Description
source_log_stream_id	Yes	String	Source log stream ID.
target_log_stream_id	No	String	Target log stream ID.
target_log_stream_name	Yes	String	Target log stream name.
target_log_stream_eps_id	No	String	Target log stream EPS ID.

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Parameter	Mandatory	Type	Description
target_log_stream_ttl	Yes	Integer	Time to live (TTL) storage duration of the target log stream, in days. Minimum: **1** Maximum: **30**

Response Parameters

Status code: 200

Table 6-705 Response body parameters

Parameter	Type	Description
status	String	Update log aggregation configurations.

Example Requests

```
PUT https://{endpoint}/v1/{project_id}/lts/log-converge-config

{
  "management_account_id" : "115ba1c5fec44839820795ebefe25f2a",
  "management_project_id" : "a5baef478e6840dc9f454bbc00c996c6",
  "organization_id" : "o-fa9h4ghf0hnpfnq4xd02tah2nxmtugrf",
  "member_account_id" : "1d26cc8c86a840e28a4f8d0d07852f1d",
  "log_mapping_config" : [ {
    "source_log_group_id" : "21845482-07fc-440c-a26a-840e6cb12289",
    "target_log_group_id" : "",
    "target_log_group_name" : "lts-xxx_xx-xxx-test",
    "log_stream_config" : [ {
      "source_log_stream_id" : "72ece92e-af01-4216-aaa7-6df7a66465c7",
      "target_log_stream_eps_id" : "0",
      "target_log_stream_id" : "",
      "target_log_stream_name" : "lts_xxx_xxx_xxx_xxx",
      "target_log_stream_ttl" : 180
    } ]
  } ]
}
```

Example Responses

Status code: 200

Response body for updating aggregation configurations

```
{
  "status" : "creating"
}
```

SDK Sample Code

The SDK sample code is as follows.

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Java

```
package com.huaweicloud.sdk.test;

import com.huaweicloud.sdk.core.auth.ICredential;
import com.huaweicloud.sdk.core.auth.BasicCredentials;
import com.huaweicloud.sdk.core.exception.ConnectionException;
import com.huaweicloud.sdk.core.exception.RequestTimeoutException;
import com.huaweicloud.sdk.core.exception.ServiceResponseException;
import com.huaweicloud.sdk.lts.v2.region.LtsRegion;
import com.huaweicloud.sdk.lts.v2.*;
import com.huaweicloud.sdk.lts.v2.model.*;

import java.util.List;
import java.util.ArrayList;

public class UpdateLogConvergeConfigSolution {

    public static void main(String[] args) {
        // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
        // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
        String ak = System.getenv("CLOUD_SDK_AK");
        String sk = System.getenv("CLOUD_SDK_SK");
        String projectId = "{project_id}";

        ICredential auth = new BasicCredentials()
                .withProjectId(projectId)
                .withAk(ak)
                .withSk(sk);

        LtsClient client = LtsClient.newBuilder()
                .withCredential(auth)
                .withRegion(LtsRegion.valueOf("<YOUR REGION>"))
                .build();
        UpdateLogConvergeConfigRequest request = new UpdateLogConvergeConfigRequest();
        UpdatelogConvergeConfig body = new UpdatelogConvergeConfig();
        List<LogMappingStreamInfo> listLogMappingConfigLogStreamConfig = new ArrayList<>();
        listLogMappingConfigLogStreamConfig.add(
            new LogMappingStreamInfo()
                .withSourceLogStreamId("72ece92e-af01-4216-aaa7-6df7a66465c7")
                .withTargetLogStreamId("")
                .withTargetLogStreamName("lts_xxx_xxx_xxx_xxx")
                .withTargetLogStreamEpsId("0")
                .withTargetLogStreamTtl(180)
        );
        List<LogMappingConfig> listbodyLogMappingConfig = new ArrayList<>();
        listbodyLogMappingConfig.add(
            new LogMappingConfig()
                .withSourceLogGroupId("21845482-07fc-440c-a26a-840e6cb12289")
                .withTargetLogGroupId("")
                .withTargetLogGroupName("lts-xxx_xx-xxx-test")
                .withLogStreamConfig(listLogMappingConfigLogStreamConfig)
        );
        body.withLogMappingConfig(listbodyLogMappingConfig);
        body.withManagementProjectId("a5baef478e6840dc9f454bbc00c996c6");
        body.withManagementAccountId("115ba1c5fec44839820795ebefe25f2a");
        body.withOrganizationId("o-fa9h4ghf0hnpfnq4xd02tah2nxmtugrf");
        body.withMemberAccountId("1d26cc8c86a840e28a4f8d0d07852f1d");
        request.withBody(body);
        try {
            UpdateLogConvergeConfigResponse response = client.updateLogConvergeConfig(request);
            System.out.println(response.toString());
        } catch (ConnectionException e) {
            e.printStackTrace();
        } catch (RequestTimeoutException e) {
            e.printStackTrace();
        } catch (ServiceResponseException e) {
```

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```
            e.printStackTrace();
            System.out.println(e.getHttpStatusCode());
            System.out.println(e.getRequestId());
            System.out.println(e.getErrorCode());
            System.out.println(e.getErrorMsg());
        }
    }
}
```

Python

```
# coding: utf-8

import os
from huaweicloudsdkcore.auth.credentials import BasicCredentials
from huaweicloudsdklts.v2.region.lts_region import LtsRegion
from huaweicloudsdkcore.exceptions import exceptions
from huaweicloudsdklts.v2 import *

if __name__ == "__main__":
    # The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    # In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak = os.environ["CLOUD_SDK_AK"]
    sk = os.environ["CLOUD_SDK_SK"]
    projectId = "{project_id}"

    credentials = BasicCredentials(ak, sk, projectId)

    client = LtsClient.new_builder() \
        .with_credentials(credentials) \
        .with_region(LtsRegion.value_of("<YOUR REGION>")) \
        .build()

    try:
        request = UpdateLogConvergeConfigRequest()
        listLogStreamConfigLogMappingConfig = [
            LogMappingStreamInfo(
                source_log_stream_id="72ece92e-af01-4216-aaa7-6df7a66465c7",
                target_log_stream_id="",
                target_log_stream_name="lts_xxx_xxx_xxx_xxx",
                target_log_stream_eps_id="0",
                target_log_stream_ttl=180
            )
        ]
        listLogMappingConfigbody = [
            LogMappingConfig(
                source_log_group_id="21845482-07fc-440c-a26a-840e6cb12289",
                target_log_group_id="",
                target_log_group_name="lts-xxx_xx-xxx-test",
                log_stream_config=listLogStreamConfigLogMappingConfig
            )
        ]
        request.body = UpdatelogConvergeConfig(
            log_mapping_config=listLogMappingConfigbody,
            management_project_id="a5baef478e6840dc9f454bbc00c996c6",
            management_account_id="115ba1c5fec44839820795ebefe25f2a",
            organization_id="o-fa9h4ghf0hnpfnq4xd02tah2nxmtugrf",
            member_account_id="1d26cc8c86a840e28a4f8d0d07852f1d"
        )
        response = client.update_log_converge_config(request)
        print(response)
    except exceptions.ClientRequestException as e:
        print(e.status_code)
        print(e.request_id)
        print(e.error_code)
        print(e.error_msg)
```

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Go

```
package main

import (
    "fmt"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/core/auth/basic"
    lts "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2"
    "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/model"
    region "github.com/huaweicloud/huaweicloud-sdk-go-v3/services/lts/v2/region"
)

func main() {
    // The AK and SK used for authentication are hard-coded or stored in plaintext, which has great security risks. It is recommended that the AK and SK be stored in ciphertext in configuration files or environment variables and decrypted during use to ensure security.
    // In this example, AK and SK are stored in environment variables for authentication. Before running this example, set environment variables CLOUD_SDK_AK and CLOUD_SDK_SK in the local environment
    ak := os.Getenv("CLOUD_SDK_AK")
    sk := os.Getenv("CLOUD_SDK_SK")
    projectId := "{project_id}"

    auth := basic.NewCredentialsBuilder().
        WithAk(ak).
        WithSk(sk).
        WithProjectId(projectId).
        Build()

    client := lts.NewLtsClient(
        lts.LtsClientBuilder().
            WithRegion(region.ValueOf("<YOUR REGION>")).
            WithCredential(auth).
            Build())

    request := &model.UpdateLogConvergeConfigRequest{}
    targetLogStreamIdLogStreamConfig:= ""
    targetLogStreamEpsIdLogStreamConfig:= "0"
    var listLogStreamConfigLogMappingConfig = []model.LogMappingStreamInfo{
        {
            SourceLogStreamId: "72ece92e-af01-4216-aaa7-6df7a66465c7",
            TargetLogStreamId: &targetLogStreamIdLogStreamConfig,
            TargetLogStreamName: "lts_xxx_xxx_xxx_xxx",
            TargetLogStreamEpsId: &targetLogStreamEpsIdLogStreamConfig,
            TargetLogStreamTtl: int32(180),
        },
    }
    targetLogGroupIdLogMappingConfig:= ""
    var listLogMappingConfigbody = []model.LogMappingConfig{
        {
            SourceLogGroupId: "21845482-07fc-440c-a26a-840e6cb12289",
            TargetLogGroupId: &targetLogGroupIdLogMappingConfig,
            TargetLogGroupName: "lts-xxx_xx-xxx-test",
            LogStreamConfig: &listLogStreamConfigLogMappingConfig,
        },
    }
    request.Body = &model.UpdatelogConvergeConfig{
        LogMappingConfig: &listLogMappingConfigbody,
        ManagementProjectId: "a5baef478e6840dc9f454bbc00c996c6",
        ManagementAccountId: "115ba1c5fec44839820795ebefe25f2a",
        OrganizationId: "o-fa9h4ghf0hnpfnq4xd02tah2nxmtugrf",
        MemberAccountId: "1d26cc8c86a840e28a4f8d0d07852f1d",
    }
    response, err := client.UpdateLogConvergeConfig(request)
    if err == nil {
        fmt.Printf("%+v\n", response)
    } else {
        fmt.Println(err)
    }
}
```

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More

For SDK sample code of more programming languages, see the Sample Code tab in **API Explorer**. SDK sample code can be automatically generated.

Status Codes

Status Code	Description
200	Response body for updating aggregation configurations

Error Codes

See **Error Codes**.

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7 Permissions Policies and Supported Actions

This section describes fine-grained permissions management for your LTS. If your account does not require IAM users, you can skip this section.

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

You can grant users permissions by using **roles** and **policies**. Roles are a type of coarse-grained authorization mechanism that defines service-level permissions based on user responsibilities. Policies define API-based permissions for operations on specific resources under certain conditions, allowing for more fine-grained, secure access control of cloud resources.

NOTE

You can use policies to allow or deny access to specific APIs.

An account has all of the permissions required to call all APIs, but IAM users must be assigned the required permissions. The permissions required for calling an API are determined by the actions supported by the API. Only users who have been granted permissions allowing the actions can call the API. For example, if an IAM user queries log metrics using an API, the user must have been granted permissions that allow the **aom:metric:get** action.

Supported Actions

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

- Permissions: Statements in a policy that allow or deny certain operations.
- APIs: REST APIs that can be called by users with the required permissions.
- Actions: Specific operations that are allowed or denied.

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- Related actions: Actions on which a specific action depends to take effect. When assigning permissions for the action to a user, you also need to assign permissions for the related actions.
- IAM or enterprise projects: Type of projects for which permissions can be granted. Policies that contain actions for both IAM and enterprise projects take effect for both IAM and Enterprise Management. Policies that only contain actions for IAM projects take effect only for IAM. For details about the differences between IAM and enterprise projects, see **What Are the Differences Between IAM and Enterprise Management**.

NOTE

The check mark (√) and cross symbol (x) respectively indicate that a permission can be or cannot be granted for the corresponding type of projects.

Permission	API	Action	Related Action	IAM Project	Enterprise Project
Creating a log group	POST /v2/{project_id}/groups	lts:groups:create	-	√	x
Querying all log groups of an account	GET /v2/{project_id}/groups	lts:groups:list	-	√	x
Modifying a log group	POST /v2/{project_id}/groups/{log_group_id}	lts:groups:put	-	√	x
Deleting a log group	DELETE /v2/{project_id}/groups/{log_group_id}	lts:groups:delete	-	√	x
Creating a log stream	POST /v2/{project_id}/groups/{log_group_id}/streams	lts:topics:create	-	√	√
Querying all log streams in a specified log group	GET /v2/{project_id}/groups/{log_group_id}/streams	lts:topics:list	-	√	√

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Permission	API	Action	Related Action	IAM Project	Enterprise Project
Deleting a log stream	DELETE /v2/{project_id}/groups/{log_group_id}/streams/{log_stream_id}	lts:topics:delete	-	√	√
Querying logs	POST /v2/{project_id}/groups/{log_group_id}/streams/{log_stream_id}/content/query	lts:logs:list	-	√	x
Querying structured logs	POST /v2/{project_id}/groups/{log_group_id}/streams/{log_stream_id}/struct-content/query	lts:logs:list	-	√	x
Transferring logs to OBS	POST /v2/{project_id}/log-dump/obs	lts:transfers:create	obs:bucket:CreateBucket obs:bucket:HeadBucket obs:bucket:GetLifecycleConfiguration obs:bucket:PutLifecycleConfiguration obs:bucket:GetBucketAcl obs:bucket:PutBucketAcl	√	x
Disabling log collection beyond free quota	POST /v2/{project_id}/collection/disable	aom:quota:set	-	√	x

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Permission	API	Action	Related Action	IAM Project	Enterprise Project
Enabling log collection beyond free quota	POST /v2/{project_id}/collection/enable	aom:quota:set	-	√	x

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8 Appendix

8.1 Status Codes

Table 1 lists the status codes.

Table 8-1 Status codes

Status Code	Returned Value	Description
200	OK	The normal response for the GET or PUT operation is returned.
201	OK	The POST request is successful and the query result is returned.
204	No Content	The normal response for the DELETE operation is returned.
400	Bad Request	Request error.
401	Unauthorized	The authentication information is not provided or is incorrect.
403	Forbidden	You are forbidden to access the page requested.
404	Not Found	The server failed to find the requested resource.
408	Request Timeout	The request timed out.
429	Too Many Requests	The number of requests exceeded the upper limit.
500	Internal Server Error	The server encountered an unexpected condition which prevented it from fulfilling the request.
503	Service Unavailable	The service is currently unavailable.

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8.2 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	LTS.0009	Failed to validate the request body.	Parameter verification failed.	Modify request parameters based on the returned error information and try again.
400	LTS.0010	The system encountered an internal error	An internal error occurred	An internal error occurred in LTS. Contact technical support.
400	LTS.0201	The log group is not existed	Failed to create the log stream because the associated log group does not exist.	Check whether the ID of the log group is correct.
400	LTS.0208	Log stream is associated by transfer	The log stream does not exist.	Check whether the log stream to be deleted exists.
400	LTS.0301	'*' and '?' not allowed as first character	Asterisks (*) and question marks (?) are placed in the middle or at the end of a keyword.	Check the keywords field based on the error information.
400	LTS.2001	Failed to create alarm rule	Creation error.	Check whether the project ID is correct.
400	LTS.2002	Failed to delete alarm rule	Deletion error.	Check whether the database or network connection is normal.

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Status Code	Error Codes	Error Message	Description	Solution
400	LTS.2003	Failed to update alarm rule	Modification error.	Abnormal connection to the database. Check the database instance status.
400	LTS.2004	The size of alarm rule has exceed the limit: 200	The number of alarm rules cannot exceed 200.	Delete existing alarm rules that are no longer used.
400	LTS.2005	The parameter is incorrect	Incorrect parameter.	Correct the parameter based on the returned error information.
400	LTS.2006	Alarm rule name has already exist	The alarm rule name already exists.	Use another alarm rule name.
400	LTS.2007	Alarm rule not exist	The alarm rule does not exist.	Check whether the alarm rule exists.
400	LTS.2008	Find Alarm rule failed	Failed to query the alarm rule.	Check whether the database or network connection is normal.
400	LTS.2009	User must have SMN service authority	You must have the permissions on SMN.	Acquire the permissions on SMN.
400	LTS.2010	Topics cannot be empty	The SMN topic cannot be empty.	Check whether the SMN topic is empty.
400	LTS.2011	Alarm rule invalid query frequency or invalid cron expression	Invalid query frequency or cron expression.	Check the query frequency or cron expression.

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Status Code	Error Codes	Error Message	Description	Solution
400	LTS.2012	The query time range cannot be larger than 1 hour when the query frequency is less than every 5 minutes.	The query time range cannot be larger than 1 hour when the query frequency is less than every 5 minutes.	Check the query time range and query frequency.
400	LTS.2013	Send Subject Error	Incorrect SMN topic.	Correct the topic based on the error information.
403	LTS.0003	No permission.	Invalid role	Grant the LTS service permission.
403	LTS.0011	Invalid projectId	Invalid project ID.	Ensure that the project ID in the URL is the same as that in the token.
500	LTS.0107	Current user does not have the permission to operate this group	Failed to update the log group.	Abnormal connection to the database. Check the database instance status.

8.3 Obtaining a Project ID

Scenario

A project ID is required for some URLs when an API is called. Obtain a project ID using either of the following methods:

- **Obtaining a Project ID by Calling an API**
- **Obtaining a Project ID on the Console**

Obtaining a Project ID by Calling an API

You can obtain the project ID by calling the API used to **query project information**.

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The API for obtaining a project ID is **GET https://*{Endpoint}*/v3/projects**, where *{Endpoint}* indicates the IAM endpoint. You can obtain the IAM endpoint from **Regions and Endpoints**. For details about API authentication, see **Authentication**.

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

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

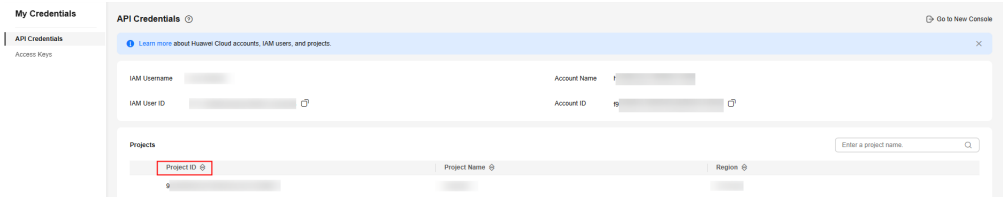
Obtaining a Project ID on the Console

A project ID is required for some URLs when APIs are called. Therefore, obtain a project ID on the console in advance.

The steps are as follows:

1. Log in to the 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.

Figure 8-1 Checking project IDs



8.4 Obtaining an Account ID

An account ID is required for some URLs when APIs are called. Therefore, obtain an account ID on the console in advance. The steps are as follows:

1. Log in to the console.
2. Hover over the username in the upper right corner and choose **My Credentials** from the drop-down list.

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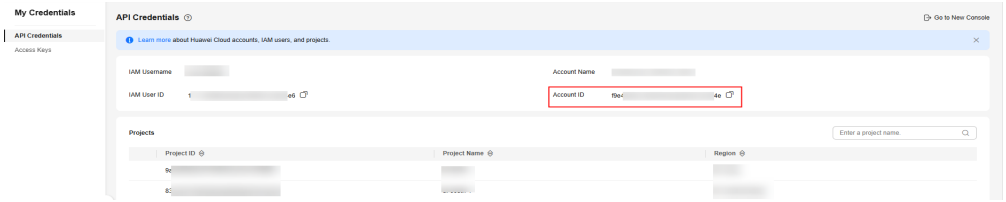
3. On the **API Credentials** page, view **Account ID**.

Figure 8-2 Viewing the account ID

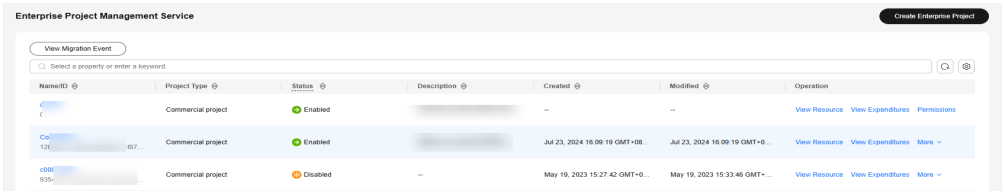


8.5 Obtaining an Enterprise Project ID

When making API calls, you may need to enter an enterprise project ID in some URIs. You can obtain it on the **Enterprise** page.

1. Log in to the console.
2. Hover your cursor over **Enterprise** in the upper right corner and choose **Project Management**.
3. In the **Name/ID** column, copy the target enterprise project ID or click the target enterprise project name to view more details.

Figure 8-3 Obtaining an enterprise project ID

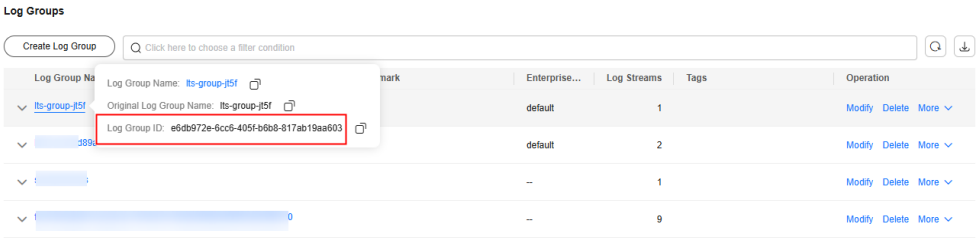


8.6 Obtaining Log Group and Log Stream IDs

When making API calls, you may need to enter log group and log stream IDs in some URIs. You can obtain it on the **Log Management** page.

1. Log in to the LTS console.
2. On the **Log Management** page, move the cursor to a log group name to view the log group ID.

Figure 8-4 Viewing a log group ID



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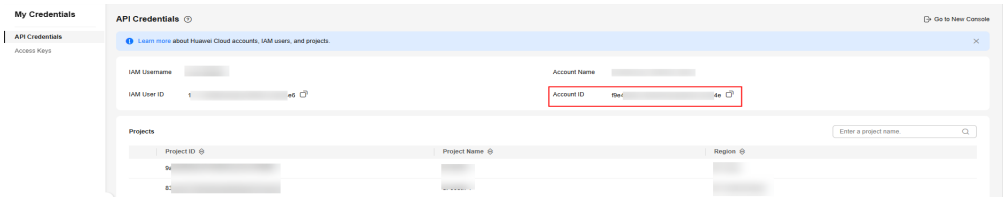
3. Click of the target log group and move the cursor to a log stream name to view the log stream ID.

Figure 8-5 Viewing a log stream ID



8.7 Time Zone List for OBS Transfer

Name	ID	Offset
International Date Line West	Etc/GMT+12	UTC-12:00
Coordinated Universal Time-11	Etc/GMT+11	UTC-11:00
Aleutian Islands	America/Adak	UTC-10:00
Hawaii	Pacific/Honolulu	UTC-10:00
Marquesas Islands	Pacific/Marquesas	UTC-09:30
Alaska	America/Anchorage	UTC-09:00
Coordinated Universal Time-09	Etc/GMT+9	UTC-09:00
Pacific Time (US & Canada)	America/Los_Angeles	UTC-08:00
Baja California	America/Tijuana	UTC-08:00
Coordinated Universal Time-08	Etc/GMT+8	UTC-08:00
Chihuahua, La Paz, Mazatlan	America/Chihuahua	UTC-07:00
Mountain Time (US & Canada)	America/Denver	UTC-07:00
Arizona	America/Phoenix	UTC-07:00
Central Time (US & Canada)	America/Chicago	UTC-06:00
Central America	America/Guatemala	UTC-06:00
Guadalajara, Mexico City, Monterrey	America/Mexico_City	UTC-06:00
Saskatchewan	America/Regina	UTC-06:00
Easter Island	Pacific/Easter	UTC-06:00

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Name	ID	Offset
Bogota, Lima, Quito, Rio Branco	America/Bogota	UTC-05:00
Chetumal	America/Cancun	UTC-05:00
Indiana (East)	America/Indianapolis	UTC-05:00
Peru	America/Lima	UTC-05:00
Eastern Time (US & Canada)	America/New_York	UTC-05:00
Haiti	America/Port-au-Prince	UTC-05:00
Asuncion	America/Asuncion	UTC-04:00
Caracas	America/Caracas	UTC-04:00
Cuiaba	America/Cuiaba	UTC-04:00
Turks and Caicos	America/Grand_Turk	UTC-04:00
Atlantic Time (Canada)	America/Halifax	UTC-04:00
Georgetown, La Paz, Manaus, San Juan	America/La_Paz	UTC-04:00
Santiago	America/Santiago	UTC-04:00
Newfoundland	America/St_Johns	UTC-03:30
Araguaina	America/Araguaina	UTC-03:00
Argentina	America/Argentina/ Buenos_Aires	UTC-03:00
Salvador	America/Bahia	UTC-03:00
City of Buenos Aires	America/Buenos_Aires	UTC-03:00
Cayenne, Fortaleza	America/Cayenne	UTC-03:00
Greenland	America/Godthab	UTC-03:00
Saint Pierre and Miquelon	America/Miquelon	UTC-03:00
Montevideo	America/Montevideo	UTC-03:00
Brasilia	America/Sao_Paulo	UTC-03:00
Coordinated Universal Time-02	Etc/GMT+2	UTC-02:00
Azores	Atlantic/Azores	UTC-01:00
Cabo Verde Is.	Atlantic/Cape_Verde	UTC-01:00
Ghana	Africa/Accra	UTC
Coordinated Universal Time	Etc/GMT	UTC

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Name	ID	Offset
Monrovia, Reykjavik	Atlantic/Reykjavik	UTC+00:00
Casablanca	Africa/Casablanca	UTC+00:00
Dublin, Edinburgh, Lisbon, London	Europe/London	UTC+00:00
West Central Africa	Africa/Lagos	UTC+01:00
Angola	Africa/Luanda	UTC+01:00
Windhoek	Africa/Windhoek	UTC+01:00
Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna	Europe/Berlin	UTC+01:00
Belgrade, Bratislava, Budapest, Ljubljana, Prague	Europe/Budapest	UTC+01:00
Brussels, Copenhagen, Madrid, Paris	Europe/Paris	UTC+01:00
Sarajevo, Skopje, Warsaw, Zagreb	Europe/Warsaw	UTC+01:00
Cairo	Africa/Cairo	UTC+02:00
Botswana	Africa/Gaborone	UTC+02:00
Zimbabwe	Africa/Harare	UTC+02:00
Harare, Pretoria	Africa/Johannesburg	UTC+02:00
Zambia	Africa/Lusaka	UTC+02:00
Mozambique	Africa/Maputo	UTC+02:00
Tripoli	Africa/Tripoli	UTC+02:00
Amman	Asia/Amman	UTC+02:00
Beirut	Asia/Beirut	UTC+02:00
Gaza, Hebron	Asia/Hebron	UTC+02:00
Jerusalem	Asia/Jerusalem	UTC+02:00
Athens, Bucharest	Europe/Bucharest	UTC+02:00
Chisinau	Europe/Chisinau	UTC+02:00
Kaliningrad	Europe/Kaliningrad	UTC+02:00
Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius	Europe/Kiev	UTC+02:00
Ethiopia	Africa/Addis_Ababa	UTC+03:00

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Name	ID	Offset
Tanzania	Africa/Dar_es_Salaam	UTC+03:00
Nairobi	Africa/Nairobi	UTC+03:00
Baghdad	Asia/Baghdad	UTC+03:00
Kuwait, Riyadh	Asia/Riyadh	UTC+03:00
Istanbul	Europe/Istanbul	UTC+03:00
Minsk	Europe/Minsk	UTC+03:00
Moscow, St. Petersburg, Volgograd	Europe/Moscow	UTC+03:00
Baku	Asia/Baku	UTC+04:00
Abu Dhabi, Muscat	Asia/Dubai	UTC+04:00
Tbilisi	Asia/Tbilisi	UTC+04:00
Yerevan	Asia/Yerevan	UTC+04:00
Astrakhan, Ulyanovsk	Europe/Astrakhan	UTC+04:00
Izhevsk, Samara	Europe/Samara	UTC+04:00
Port Louis	Indian/Mauritius	UTC+04:00
Kabul	Asia/Kabul	UTC+04:30
Islamabad, Karachi	Asia/Karachi	UTC+05:00
Ashgabat, Tashkent	Asia/Tashkent	UTC+05:00
Ekaterinburg	Asia/Yekaterinburg	UTC+05:00
Chennai, Kolkata, Mumbai, New Delhi	Asia/Calcutta	UTC+05:30
Sri Jayawardenepura	Asia/Colombo	UTC+05:30
India	Asia/Kolkata	UTC+05:30
Nepal	Asia/Kathmandu	UTC+05:45
Kathmandu	Asia/Kathmandu	UTC+05:45
Astana	Asia/Almaty	UTC+06:00
Dhaka	Asia/Dhaka	UTC+06:00
Omsk	Asia/Omsk	UTC+06:00
Yangon (Rangoon)	Asia/Rangoon	UTC+06:30
Myanmar	Asia/Yangon	UTC+06:30
Bangkok, Hanoi, Jakarta	Asia/Bangkok	UTC+07:00

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Name	ID	Offset
Barnaul, Gorno-Altaysk	Asia/Barnaul	UTC+07:00
Vietnam	Asia/Ho_Chi_Minh	UTC+07:00
Hovd	Asia/Hovd	UTC+07:00
Indonesia	Asia/Jakarta	UTC+07:00
Krasnoyarsk	Asia/Krasnoyarsk	UTC+07:00
Novosibirsk	Asia/Novosibirsk	UTC+07:00
Cambodia	Asia/Phnom_Penh	UTC+07:00
Tomsk	Asia/Tomsk	UTC+07:00
Laos	Asia/Vientiane	UTC+07:00
Hong Kong (China)	Asia/Hong_Kong	UTC+08:00
Irkutsk	Asia/Irkutsk	UTC+08:00
Malaysia	Asia/Kuala_Lumpur	UTC+08:00
Macao (China)	Asia/Macao	UTC+08:00
Philippines	Asia/Manila	UTC+08:00
Beijing, Chongqing, Hong Kong, Urumqi	Asia/Shanghai	UTC+08:00
Kuala Lumpur, Singapore	Asia/Singapore	UTC+08:00
Taipei	Asia/Taipei	UTC+08:00
Ulaanbaatar	Asia/Ulaanbaatar	UTC+08:00
Perth	Australia/Perth	UTC+08:00
Eucla	Australia/Eucla	UTC+08:45
Chita	Asia/Chita	UTC+09:00
Seoul	Asia/Seoul	UTC+09:00
Osaka, Sapporo, Tokyo	Asia/Tokyo	UTC+09:00
Yakutsk	Asia/Yakutsk	UTC+09:00
Adelaide	Australia/Adelaide	UTC+09:30
Darwin	Australia/Darwin	UTC+09:30
Vladivostok	Asia/Vladivostok	UTC+10:00
Brisbane	Australia/Brisbane	UTC+10:00
Hobart	Australia/Hobart	UTC+10:00

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Name	ID	Offset
Canberra, Melbourne, Sydney	Australia/Sydney	UTC+10:00
Guam, Port Moresby	Pacific/Port_Moresby	UTC+10:00
Lord Howe Island	Australia/Lord_Howe	UTC+10:30
Magadan	Asia/Magadan	UTC+11:00
Sakhalin	Asia/Sakhalin	UTC+11:00
Chokurdakh	Asia/Srednekolymsk	UTC+11:00
Bougainville Island	Pacific/Bougainville	UTC+11:00
Solomon Is., New Caledonia	Pacific/Guadalcanal	UTC+11:00
Norfolk Island	Pacific/Norfolk	UTC+11:00
Anadyr, Petropavlovsk-Kamchatsky	Asia/Kamchatka	UTC+12:00
Coordinated Universal Time +12	Etc/GMT-12	UTC+12:00
Auckland, Wellington	Pacific/Auckland	UTC+12:00
Fiji	Pacific/Fiji	UTC+12:00
Chatham Islands	Pacific/Chatham	UTC+12:45
Samoa	Pacific/Apia	UTC+13:00
Nuku alofa	Pacific/Tongatapu	UTC+13:00
Kiritimati Island	Pacific/Kiritimati	UTC+14:00

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