SoftWare Repository for Container

API Reference (Ankara Region)

Issue 01

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1 Before You Start

1.1 Overview

Welcome to use SoftWare Repository for Container (SWR). SWR provides easy, secure, and reliable management over container images throughout their lifecycles, facilitating the deployment of containerized applications.

This document describes how to use APIs to perform operations on SWR, such as creation, deletion, and query. For details about all supported operations, see **API Overview**.

If you plan to access SWR through APIs, ensure that you are familiar with SWR concepts. For details, see **Introduction**.

If you plan to access SWR through APIs, ensure that you are familiar with SWR concepts. For details, see Introduction in *SWR User Guide*.

1.2 API Calling

SWR supports Representational State Transfer (REST) APIs, allowing you to call APIs using HTTPS.

For details, see **Calling APIs**.

For details about how to call each API, see example requests in **API**.

1.3 Endpoints

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

To obtain regions and endpoints, contact the administrator.

Select an endpoint based on your service requirements.

1.4 Constraints

- The number of SWR organizations that you can create is determined by your quota, as shown in **Table 1-1**.

Table 1-1 Quota

Resource	Quota
Number of organizations	5

- For more constraints, see API description.

1.5 Concepts

- **Domain**

  A domain 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 domain should not be used directly to perform routine management. For security purposes, create Identity and Access Management (IAM) users and grant user permissions for routine management.

- **IAM user**

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

  API authentication requires information such as the domain name, username, and password.

- **Region**

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

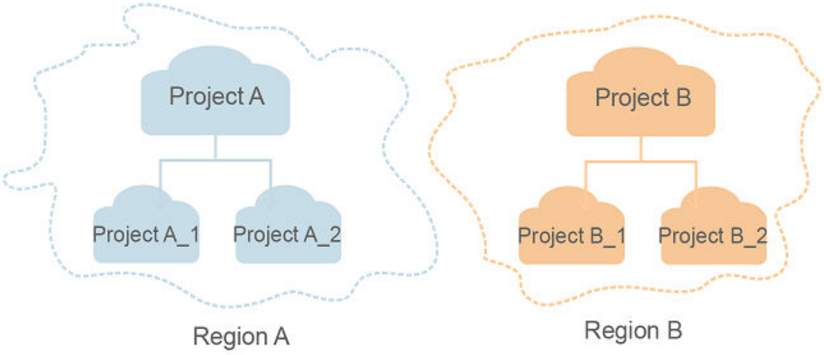
- **AZ**

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

- **Project**

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

Figure 1-1 Project isolation model



- **Enterprise project**

  Enterprise projects group and manage resources across regions. Resources in different enterprise projects are logically isolated. An enterprise project can contain resources of multiple regions, and resources can be added to or removed from enterprise projects.

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

2 API Overview

You can query information about organizations, image repositories, and images, and manage organizations, image repositories, and images by using interfaces provided by the container image service.

Organization Management

API	Description
Creating an Organization	Create an organization.
Deleting an Organization	Delete an organization.
Querying the List of Organizations	Query the list of organizations.
Querying the Details of an Organization	Query the details of an organization, including its ID, name, creator, and user permissions.

Image Repository Management

API	Description
Creating an Image Repository in an Organization	Create an image repository in an organization.
Deleting an Image Repository in an Organization	Delete an image repository in an organization.
Updating the Brief Information on an Image Repository	Update the brief information on an image repository in an organization, including the **category**, **is_public**, and **description**.

Querying the Brief Information on an Image Repository	Query the brief information on an image repository in an organization, including the image's repository ID, organization ID, repository name, description of the repository, the creator and capacity of the repository, and the image pull address.
Querying the Image Repository List	Query the image repository list.
Viewing the List of Shared Images	View the list of shared images.

Image Tag Management

API	Description
Querying the List of Image Repository Tags	Query all image tags of an image repository.
Deleting the Image with a Specified Tag	Delete the image with a specified tag in an image repository.

Shared Account Management

API	Description
Creating an Account Used for Image Sharing	Create an account used for image sharing. You can share your private images with other users, granting them permissions to pull the images.
Deleting an Account Used for Image Sharing	Delete an account used for image sharing.
Updating an Account Used for Image Sharing	Update an account used for image sharing.
Checking the Existence of an Account Used for Image Sharing	Check whether an account used for image sharing exists.
Obtaining the List of Accounts Used for Image Sharing	Obtain the list of accounts used for image sharing.

API Versions

API	Description

Querying All API Versions	Query all available API versions of SWR.
Querying a Specific API Version	Query a specific API version of SWR.

Organization Permission Management

API	Description
Creating Organization Permissions	Grant permissions of an organization to certain users so that they can manage, edit, and read images from the organization.
Deleting Organization Permissions	Delete the organization operation permissions of certain users.
Updating Organization Permissions	Update the organization operation permission types for certain users.
Querying Organization Permissions	Query organization permissions.

Image Permission Management

API	Description
Creating Image Permissions	Grant permissions of an image to certain users so that they can manage, edit, and read the image.
Deleting Image Permissions	Delete the image operation permissions of certain users.
Updating Image Permissions	Update the image operation permission types for certain users.
Querying Image Permissions	Query image permissions.

Trigger Management

API	Description
Creating a Trigger	Create a trigger.
Obtaining the Trigger List of a Specific Image Repository	Obtain the trigger list of a specific image repository.

Deleting a Trigger	Delete a trigger.
Obtaining Information About a Trigger	Obtain information about a trigger.
Updating Trigger Settings	Update the status of a trigger.

Image Retention Policy Management

API	Description
Adding an Image Retention Policy	Add an image retention policy.
Obtaining the List of Image Retention Policies	Obtain the list of image retention policies.
Deleting an Image Retention Policy	Delete an image retention policy.
Obtaining an Image Retention Policy Record	Obtain the records of image retention policies.
Modifying an Image Retention Policy	Modify an image retention policy.
Obtaining Image Retention Records	Obtain image retention records.

Temporary Login Command

API	Description
Generating a Temporary Login Command	Generate a temporary login command using the value of **X-Swr-Dockerlogin** in the response header and the value of **host** in the response body.

3 Calling APIs

3.1 Making an API Request

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

Request URI

A request URI is in the following format:

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

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

Table 3-1 URI parameter description

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

NOTE

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

Request Methods

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

Table 3-2 HTTP methods

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

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

```
POST https://{{endpoint}}/v3/auth/tokens
```

Request Header

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

Common request header fields are as follows.

Table 3-3 Common request header fields

Parameter	Description	Mandatory	Example Value
Host	Specifies the server domain name and port number of the resources being requested. The value can be obtained from the URL of the service API. The value is in the format of *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	Specifies the 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	Specifies the length of the request body. The unit is byte.	No	3495
X-Project-Id	Specifies the project ID. Obtain the project ID by following the instructions in **Obtaining a Project ID**.	No	e9993fc787d94b6c886cbaa340f9c0f4
X-Auth-Token	Specifies the user token. It is a response to the API for obtaining a user token (This is the only API 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: MIIPAgYJKoZIhvcNAQcCo...ggg1BBIINPXsidG9rZ

NOTE

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

For more details, see "Authentication Using AK/SK" in **Authentication**.

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

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

(Optional) Request Body

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

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

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

NOTE

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

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

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

```
  }
}
```

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

3.2 Authentication

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

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

AK/SK Authentication

An AK/SK is used to verify the identity of a request sender. In AK/SK authentication, a signature needs to be obtained and then added to requests.

NOTE

AK: access key ID, which is a unique identifier used in conjunction with a secret access key to sign requests cryptographically.

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

The following uses a demo project to show how to sign a request and use an HTTP client to send an HTTPS request.

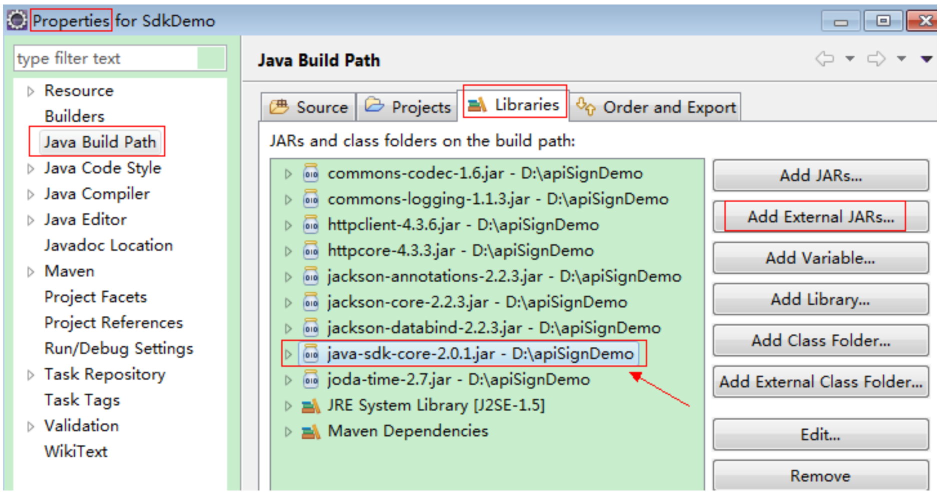
Download the demo project at **https://github.com/api-gate-way/SdkDemo**.

If you do not need the demo project, visit the following URL to download the API Gateway signing SDK:

Obtain the API Gateway signing SDK from the enterprise administrator.

Decompress the downloaded package and reference the obtained JAR files as dependencies.

Figure 3-1 Introducing the API Gateway signing SDK


Properties for SdkDemo
type filter text
Resource
Builders
Java Build Path
Java Code Style
Java Compiler
Java Editor
Javadoc Location
Maven
Project Facets
Project References
Run/Debug Settings
Task Repository
Task Tags
Validation
WikiText
Java Build Path
Source
Projects
Libraries
Order and Export
JARs and class folders on the build path:
commons-codec-1.6.jar - D:\apiSignDemo
commons-logging-1.1.3.jar - D:\apiSignDemo
httpclient-4.3.6.jar - D:\apiSignDemo
httpcore-4.3.3.jar - D:\apiSignDemo
jackson-annotations-2.2.3.jar - D:\apiSignDemo
jackson-core-2.2.3.jar - D:\apiSignDemo
jackson-databind-2.2.3.jar - D:\apiSignDemo
java-sdk-core-2.0.1.jar - D:\apiSignDemo
joda-time-2.7.jar - D:\apiSignDemo
JRE System Library [J2SE-1.5]
Maven Dependencies
Add JARs...
Add External JARs...
Add Variable...
Add Library...
Add Class Folder...
Add External Class Folder...
Edit...
Remove

Step 1 Generate an AK/SK. (If you already have an AK/SK file, skip this step and find it. Generally, the file name is **credentials.csv**.)

1. Log in to the management console.
2. Click the username and select **My Credentials** from the drop-down list.
3. In the navigation tree on the left, click **Access Keys**.
4. Click **Add Access Key**.
5. Enter an access key description and click **OK**.
6. Enter the verification code received by email, SMS message, or MFA application.

   NOTE

   If you have enabled operation protection (**Security Settings** > **Critical Operations** > **Operation Protection**), you need to enter the verification code.

   For users created in IAM that have not bound with any email address or mobile number, only the login password needs to be entered.

7. Download the access key file.

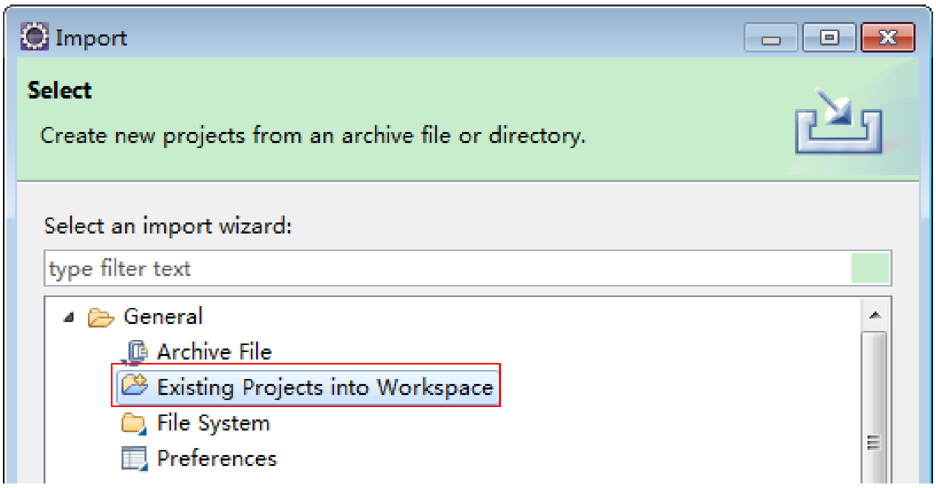
   NOTE

   Keep the access key secure.

Step 2 Download and decompress the demo project.

Step 3 Import the demo project to Eclipse.

Figure 3-2 Selecting Existing Projects into Workspace



Import

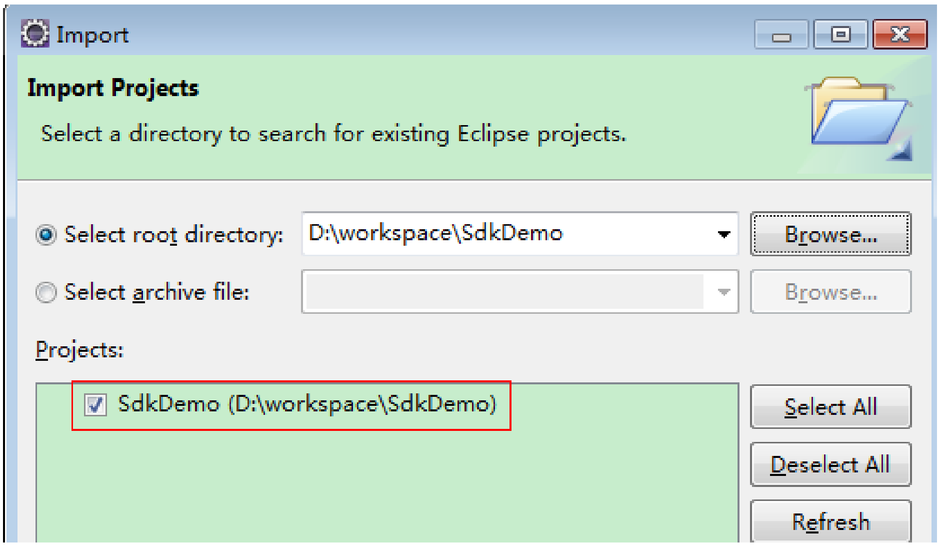
Select

Create new projects from an archive file or directory.

Select an import wizard:

type filter text

Figure 3-3 Selecting the demo project



Import

Import Projects

Select a directory to search for existing Eclipse projects.

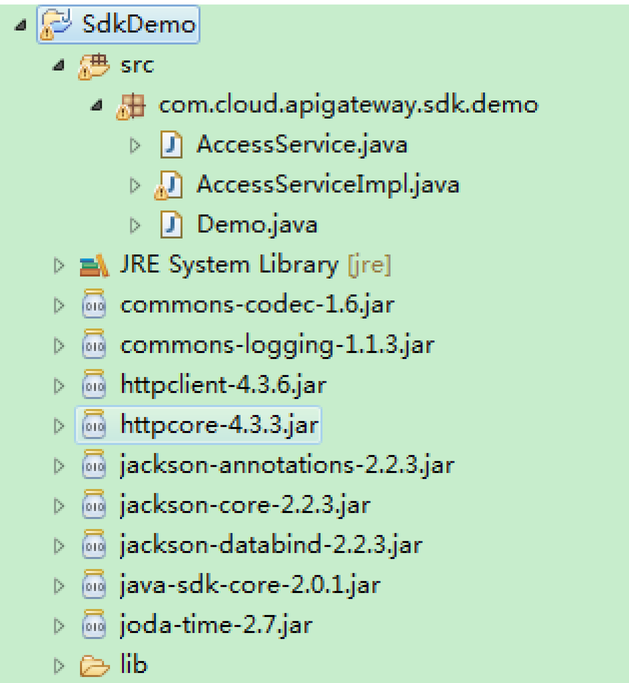
● Select root directory: D:\workspace\SdkDemo

○ Select archive file:

Projects:

☑ SdkDemo (D:\workspace\SdkDemo)

Figure 3-4 Structure of the demo project



```
SdkDemo
  src
    com.cloud.apigateway.sdk.demo
      AccessService.java
      AccessServiceImpl.java
      Demo.java
  JRE System Library [jre]
  commons-codec-1.6.jar
  commons-logging-1.1.3.jar
  httpclient-4.3.6.jar
  httpcore-4.3.3.jar
  jackson-annotations-2.2.3.jar
  jackson-core-2.2.3.jar
  jackson-databind-2.2.3.jar
  java-sdk-core-2.0.1.jar
  joda-time-2.7.jar
  lib
```

Step 4 Sign the request.

The request signing method is integrated in the JAR files imported in **Step 3**. The request needs to be signed before it is sent. The signature will then be added as part of the HTTP header to the request.

The demo code is classified into the following classes to demonstrate how to sign and send an HTTP request:

- **AccessService**: an abstract class that merges the GET, POST, PUT, and DELETE methods into the **access** method
- **Demo**: an execution entry used to simulate the sending of GET, POST, PUT, and DELETE requests
- **AccessServiceImpl**: **access** method implementation, which contains the code required for communication with API Gateway

1. Edit the main method in the **Demo.java** file, and replace the bold text with actual values.

   If you use other methods such as POST, PUT, and DELETE, see the corresponding comment.

   Specify **region**, **serviceName**, **ak/sk**, and **url** as the actual values. In this demo, the URLs for accessing VPC resources are used.

   To obtain the project ID in the URLs, see **Obtaining a Project ID**.

   To obtain the endpoint, contact the enterprise administrator.

```
//TODO: Replace region with the name of the region in which the service to be accessed is located.
private static final String region = "";

//TODO: Replace vpc with the name of the service you want to access. For example, ecs, vpc, iam, and elb.
private static final String serviceName = "";

public static void main(String[] args) throws UnsupportedEncodingException
```

```
{
//TODO: Replace the AK and SK with those obtained on the My Credentials page.
String ak = "ZIRRKMTWP******1WKNKB";
String sk = "Us0mdMNHk******YrRCnW0ecfzl";

//TODO: To specify a project ID (multi-project scenarios), add the X-Project-Id header.
//TODO: To access a global service, such as IAM, DNS, CDN, and TMS, add the X-Domain-Id header to specify an account ID.
//TODO: To add a header, find "Add special headers" in the AccessServiceImple.java file.

//TODO: Test the API
String url = "https://{Endpoint}/v1/{project_id}/vpcs";
get(ak, sk, url);

//TODO: When creating a VPC, replace {project_id} in postUrl with the actual value.
//String postUrl = "https://serviceEndpoint/v1/{project_id}/cloudservers";
//String postbody ="{\"vpc\": {\"name\": \"vpc\",\"cidr\": \"192.168.0.0/16\"}}";
//post(ak, sk, postUrl, postbody);

//TODO: When querying a VPC, replace {project_id} in url with the actual value.
//String url = "https://serviceEndpoint/v1/{project_id}/vpcs/{vpc_id}";
//get(ak, sk, url);

//TODO: When updating a VPC, replace {project_id} and {vpc_id} in putUrl with the actual values.
//String putUrl = "https://serviceEndpoint/v1/{project_id}/vpcs/{vpc_id}";
//String putbody ="{\"vpc\":{\"name\": \"vpc1\",\"cidr\": \"192.168.0.0/16\"}}";
//put(ak, sk, putUrl, putbody);

//TODO: When deleting a VPC, replace {project_id} and {vpc_id} in deleteUrl with the actual values.
//String deleteUrl = "https://serviceEndpoint/v1/{project_id}/vpcs/{vpc_id}";
//delete(ak, sk, deleteUrl);
}
```

2. Compile the code and call the API.

   In the **Package Explorer** area on the left, right-click **Demo.java** and choose **Run AS** > **Java Application** from the shortcut menu to run the demo code.

   You can view API call logs on the console.

----End

Token Authentication

NOTE

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

A token specifies temporary permissions in a computer system. During API authentication using a token, the token is added to requests to get permissions for calling the API. You can obtain a token by calling the Obtaining User Token API.

IMS is a project-level service. When you call the API, set **auth.scope** in the request body to **project**.

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

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

```

POST https://{{endpoint}}/v3/auth/projects
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

3.3 Response

Status Code

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

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

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

Response Header

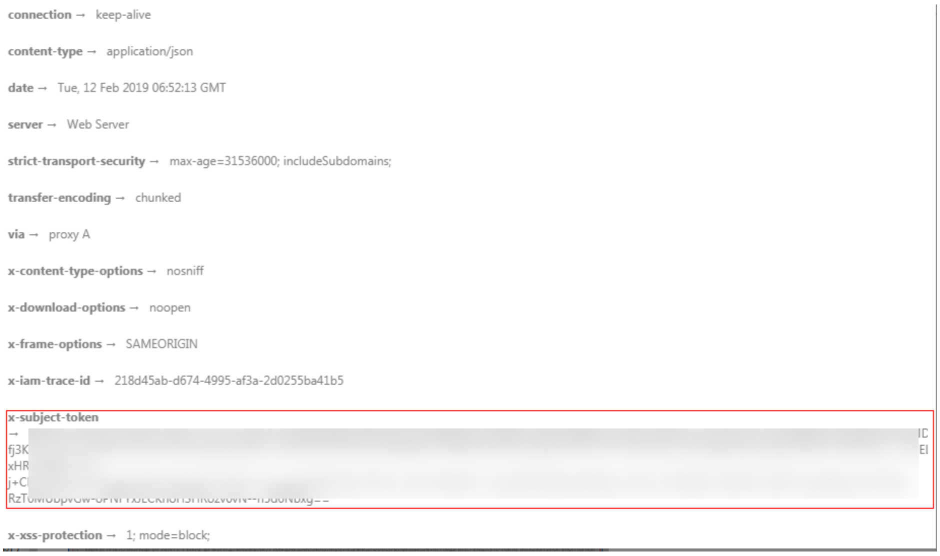
Similar to a request, a response also has a header, for example, **Content-Type**.

Figure 3-5 shows the response header fields for the API used to obtain a user token. The **X-Subject-Token** header field is the desired user token. This token can then be used to authenticate the calling of other APIs.

NOTE

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

Figure 3-5 Header fields of the response to the request for obtaining a user token



```
connection → keep-alive

content-type → application/json

date → Tue, 12 Feb 2019 06:52:13 GMT

server → Web Server

strict-transport-security → max-age=31536000; includeSubdomains;

transfer-encoding → chunked

via → proxy A

x-content-type-options → nosniff

x-download-options → noopen

x-frame-options → SAMEORIGIN

x-iam-trace-id → 218d45ab-d674-4995-af3a-2d0255ba41b5

x-subject-token
→ [redacted]

x-xss-protection → 1; mode=block;
```

(Optional) Response Body

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

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

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

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

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

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

4 API

4.1 Organization Management

4.1.1 Creating an Organization

Function

Create an organization.

URI

POST /v2/manage/namespaces

Request Parameters

Table 4-1 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/ json;charset=utf-8 application/json** The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Table 4-2 Request body parameter

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name. Enter 1 to 64 characters, starting with a lowercase letter and ending with a lowercase letter or digit. Only lowercase letters, digits, periods (.), underscores (_), and hyphens (-) are allowed. Periods, underscores, and hyphens cannot be placed next to each other. A maximum of two consecutive underscores are allowed.

Response Parameters

N/A

Example Request

```
POST https://{endpoint}/v2/manage/namespaces

{
  "namespace" : "group"
}
```

Example Response

N/A

Status Code

Status Code	Description
201	Creation successful.
400	The request is incorrect or the number of organizations exceeds the upper limit.
401	Authentication failed.
409	The resource already exists.
500	Internal error.

4.1.2 Deleting an Organization

Function

Delete an organization.

URI

DELETE /v2/manage/namespaces/{*namespace*}

For details about parameters, see **Table 4-3**.

Table 4-3 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name. Enter 1 to 64 characters, starting with a lowercase letter and ending with a lowercase letter or digit. Only lowercase letters, digits, periods (.), underscores (_), and hyphens (-) are allowed. Periods, underscores, and hyphens cannot be placed next to each other. A maximum of two consecutive underscores are allowed.

Request Parameters

Table 4-4 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json;charset=utf-8** **application/json** The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Response

N/A

Status Code

Status Code	Description
204	Deleted successfully.
400	Request error.
401	Authentication failed.
404	The organization does not exist.
500	Internal error.

4.1.3 Querying the List of Organizations

Function

Query the list of organizations.

URI

GET /v2/manage/namespaces

Table 4-5 Query parameters

Parameter	Mandatory	Type	Description
namespace	No	String	Organization name. Enter 1 to 64 characters, starting with a lowercase letter and ending with a lowercase letter or digit. Only lowercase letters, digits, periods (.), underscores (_), and hyphens (-) are allowed. Periods, underscores, and hyphens cannot be placed next to each other. A maximum of two consecutive underscores are allowed.

Parameter	Mandatory	Type	Description
filter	No	String	Enter **namespace::{*namespace*}|mode::{*mode*}**. **{namespace}** indicates the organization name. If **{mode}** is not set, the list of authorized organizations is displayed. If **{mode}** is set to **visible**, the list of visible organizations is displayed. (Some organizations can be viewed by the repository, but cannot by the organization.)

Request Parameters

Table 4-6 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

NOTE

By default, all organizations will be returned.

Response Parameters

Table 4-7 Response body parameter description

Parameter	Type	Description
namespaces	Array of **objects**	Organization list

Table 4-8 namespaces parameter description

Parameter	Type	Description
ID	Integer	Organization ID
name	String	Organization name
creator_name	String	IAM username
auth	Integer	User permission ● 7: Manage ● 3: Write ● 1: Read

Example Request

```
GET https://{Endpoint}/v2/manage/namespaces?namespace=group
```

Example Response

Status code: 200

The list of organizations is returned successfully.

```
{
   "namespaces": [
      {
         "id": 1343008,
         "name": "group",
         "creator_name": "username",
         "auth": 7
      }
   ]
}
```

Status Code

Status Code	Description
200	Query succeeded.
400	Request error.
401	Authentication failed.
404	The organization does not exist.
500	Internal error.

Error Codes

For details, see **Error Codes**.

4.1.4 Querying the Details of an Organization

Function

Query the details of an organization by its name.

URI

GET /v2/manage/namespaces/{*namespace*}

For details about parameters, see **Table 4-9**.

Table 4-9 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name

Request Parameters

Table 4-10 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

Status code: 200

Table 4-11 Response body parameter description

Parameter	Type	Description
id	Integer	Organization ID

Parameter	Type	Description
name	String	Organization name
creator_name	String	IAM username
auth	Integer	User permission ● 7: Manage ● 3: Write ● 1: Read

Example Request

```
GET https://{Endpoint}/v2/manage/namespaces/group
```

Example Response

```
{
   "id": 1422,
   "name": "group",
   "creator_name": "username",
   "auth": 7
}
```

Status Code

Status Code	Description
200	Query succeeded.
400	Request error.
401	Authentication failed.
404	The organization does not exist.
500	Internal error.

Error Codes

For details, see **Error Codes**.

4.2 Image Repository Management

4.2.1 Creating an Image Repository

Function

Create an image repository in an organization.

URI

POST /v2/manage/namespaces/{*namespace*}/repos

For details about parameters, see **Table 4-12**.

Table 4-12 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name. Enter 1 to 64 characters, starting with a lowercase letter and ending with a lowercase letter or digit. Only lowercase letters, digits, periods (.), underscores (_), and hyphens (-) are allowed. Periods, underscores, and hyphens cannot be placed next to each other. A maximum of two consecutive underscores are allowed.

Request Parameters

Table 4-13 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

Table 4-14 Request body parameters

Parameter	Mandatory	Type	Description
repository	Yes	String	Image repository name. An image repository name contains 1 to 128 characters. It must start and end with a lowercase letter or digit. Only lowercase letters, digits, periods (.), slashes (/), underscores (_), and hyphens (-) are allowed. Periods, slashes, underscores, and hyphens cannot be placed next to each other. A maximum of two consecutive underscores are allowed.
is_public	Yes	Boolean	Whether the repository is public. **true** indicates that the repository is public. **false** indicates that the repository is private.
category	No	String	Repository type. The value can be **app_server**, **linux**, **framework_app**, **database**, **lang**, **arm**, or **other**.
description	No	String	Brief description of the image repository.

Response Parameters

None

Example Request

```
POST https://{endpoint}/v2/manage/namespaces/{namespace}/repos

{
  "repository" : "busybox",
  "category" : "linux",
  "description" : "this is a busybox repository",
  "is_public" : true
}
```

Example Response

None

Status Code

Status Code	Description
201	Creation successful.
400	Request error. Error information is returned.
401	Authentication failed.
409	The repository already exists.
500	Internal error. Error information is returned.

Error Codes

For details, see **Error Codes**.

4.2.2 Deleting an Image Repository

Function

Delete an image repository in an organization.

URI

DELETE /v2/manage/namespaces/{*namespace*}/repos/{*repository*}

For details about parameters, see **Table 4-15**.

Table 4-15 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name.
repository	Yes	String	Image repository name.

Request Parameters

Table 4-16 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

None

Example Request

```
DELETE https://{endpoint}/v2/manage/namespaces/{namespace}}/repos/{repository}
```

Example Response

None

Status Code

Status Code	Description
204	The brief information about the image repository is successfully deleted.
400	Request error. Error information is returned.
401	Authentication failed.
404	The repository does not exist.
406	The repository cannot be deleted because it contains images.
500	Internal error. Error information is returned.

Error Codes

For details, see **Error Codes**.

4.2.3 Updating the Brief Information on an Image Repository

Function

Update the brief information on an image repository in an organization, including the **category**, **is_public**, and **description**.

URI

PATCH /v2/manage/namespaces/{*namespace*}/repos/{*repository*}

For details about parameters, see **Table 4-17**.

Table 4-17 Path parameters

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name. Enter 1 to 64 characters, starting with a lowercase letter and ending with a lowercase letter or digit. Only lowercase letters, digits, periods (.), underscores (_), and hyphens (-) are allowed. Periods, underscores, and hyphens cannot be placed next to each other. A maximum of two consecutive underscores are allowed.
repository	Yes	String	Image repository name. Enter 1 to 128 characters. It must start and end with a lowercase letter or digit. Only lowercase letters, digits, periods (.), slashes (/), underscores (_), and hyphens (-) are allowed. Periods, slashes, underscores, and hyphens cannot be placed next to each other. A maximum of two consecutive underscores are allowed. Replace a slash (/) with a dollar sign ($) before you send the request.

Request Parameters

Table 4-18 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

Table 4-19 Request body parameters

Parameter	Mandatory	Type	Description
is_public	Yes	Boolean	Whether the repository is public. **true** indicates that the repository is public. **false** indicates that the repository is private.
category	No	String	Repository type. The value can be **app_server**, **linux**, **framework_app**, **database**, **lang**, **arm**, or **other**.
description	No	String	Brief description of the image repository.

Response Parameters

None

Example Request

```
PATCH https://{endpoint}/v2/manage/namespaces/{namespace}/repos/{repository}

{
  "category" : "database",
  "description" : "this is a busybox repository",
  "is_public" : false
}
```

Example Response

None

Status Code

Status Code	Description
201	The brief information about the image repository is successfully updated.
400	Request error. Error information is returned.
401	Authentication failed.
404	The repository does not exist.
500	Internal error. Error information is returned.

Error Codes

For details, see **Error Codes**.

4.2.4 Querying the Brief Information on an Image Repository

Function

Query the brief information on an image repository in an organization.

URI

GET /v2/manage/namespaces/{*namespace*}/repos/{*repository*}

For details about parameters, see **Table 4-20**.

Table 4-20 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name
repository	Yes	String	Image repository name

Request

- Request parameters

  N/A

- Example request

```
GET https://{Endpoint}/v2/manage/namespaces/group/repos/busybox
```

Response

- Response parameters

Table 4-21 Response body parameter description

Parameter	Type	Description
id	Integer	Image repository ID.
ns_id	Integer	Organization ID.
name	String	Image repository name.
category	String	Image repository type. The value can be **app_server**, **linux**, **framework_app**, **database**, **lang**, **arm**, or **other**.
description	String	Brief description of the image repository.
creator_id	String	Image repository creator ID.
creator_name	String	Image repository creator.
size	Integer	Image repository size.
is_public	Boolean	Whether the image repository is a public repository. The value can be **true** or **false**.
num_images	Integer	Number of images in an image repository.
num_download	Integer	Download times of an image repository.
url	String	URL of the image repository logo image. This field has been discarded and is left empty by default.
path	String	External image pull address. The format is {*Repository address*}/{*Namespace name*}/{*Repository name*}.

Parameter	Type	Description
internal_path	String	Internal image pull address. The format is {*Repository address*}/{*Namespace name*}/{*Repository name*}.
created	String	Time when an image repository is created. It is the UTC standard time.
updated	String	Time when an image repository is updated. It is the UTC standard time.
domain_id	String	Account ID.
priority	Integer	Image sorting priority.

- Example response

```
{
    "id": 865151,
    "ns_id": 1334795,
    "name": "busybox",
    "category": "other",
    "description": "containerops",
    "creator_id": "050b12577f00269a1fcfc01f65239697",
    "creator_name": "admin",
    "size": 2099575,
    "is_public": false,
    "num_images": 1,
    "num_download": 0,
    "url": "",
    "path": "{Repository address}/group/busybox",
    "internal_path": "{Repository address}/group/busybox",
    "created": "2021-06-02T09:59:25.51307Z",
    "updated": "2021-06-02T17:59:25.538056Z",
    "domain_id": "da44776c316c4a99b3683bb174f8821b",
    "priority": 0
}
```

Status Code

Status Code	Description
200	Request successful.
400	Request error. Error information is returned.
401	Authentication failed.
404	The repository does not exist.
500	Internal error. Error information is returned.

Error Codes

For details, see **Error Codes**.

4.2.5 Querying the Image Repository List

Function

Query the image repository list.

URI

GET /v2/manage/repos

Table 4-22 Query parameters

Parameter	Mandatory	Type	Description
namespace	No	String	Organization name. An organization name contains 1 to 64 characters. It must start with a lowercase letter and end with a lowercase letter or digit. Only lowercase letters, digits, periods (.), underscores (_), and hyphens (-) are allowed. Periods, underscores, and hyphens cannot be placed next to each other. A maximum of two consecutive underscores are allowed.
name	No	String	Image repository name.
category	No	String	Repository type. The value can be **app_server**, **linux**, **framework_app**, **database**, **lang**, **arm**, or **other**.
limit	No	String	Number of returned records. Parameters **offset** and **limit** should always be used together. If this parameter is not specified, 100 records will be returned by default.

Parameter	Mandatory	Type	Description
offset	No	String	Start index. The value can be **0** or a positive integer multiple of the **limit** value. If this parameter is not specified, the start index is **0** by default. Parameters **offset** and **limit** should always be used together.
order_column	No	String	Sorting by column. You can set this parameter to **updated_at** (sorting by update time). Parameters **order_column** and **order_type** should always be used together.
order_type	No	String	Sorting type. You can set this parameter to **desc** (descending sort) or **asc** (ascending sort). Parameters **order_column** and **order_type** should always be used together.

Parameter	Mandatory	Type	Description
filter	No	String	Pass at least one of the following filter parameters: **namespace**: organization name. It supports fuzzy match. **name**: image repository name. It supports fuzzy match. **category**: image repository type. The value can be **app_server**, **linux**, **framework_app**, **database**, **lang**, **arm**, or **other**. **limit**: number of returned records. **offset**: the start index. Parameters **offset** and **limit** should always be used together. **order_column**: sorting by column. It can be set to **name**, **updated_time**, or **tag_count**. **order_type**: sorting type. It can be set to **desc** (descending order) or **asc** (ascending order). Parameters **order_column** and **order_type** should always be used together.

Request

- Request parameters

  N/A

- Example request

```
GET https://{Endpoint}/v2/manage/repos?center=self&namespace=group&name=busybox
```

Response

- Response parameters

Table 4-23 Response header parameter description

Parameter	Type	Description
Content-Range	String	*Offset* (Start index) – *Count* (Number of records on the current page)/*Total* (Total number of records)

NOTE

If the **offset** and **limit** parameters are transferred in the request, **Content-Range** will be added to the response header.

Table 4-24 Response body parameter description

Parameter	Type	Description
[Array element]	Array of **objects**	Image repository list.

Table 4-25 *[Array element]* parameters description

Parameter	Type	Description
name	String	Image repository name.
category	String	Image repository type. The value can be **app_server**, **linux**, **framework_app**, **database**, **lang**, **arm**, or **other**.
description	String	Image repository description.
size	Integer	Total size of the images in an image repository.
is_public	Boolean	Whether the image is a public image. The value can be **true** or **false**.
num_images	Integer	Number of image tags in an image repository.
num_download	Integer	Download times.
created_at	String	Time when an image repository is created. It is the UTC standard time.
updated_at	String	Time when an image repository is updated. It is the UTC standard time.
logo	String	(Reserved field) Image repository logo address.
url	String	(Reserved field) URL of the image repository logo.

Parameter	Type	Description
path	String	External Docker pull address. The format is {*Repository address*}/{*Namespace name*}/{*Repository name*}.
internal_path	String	Internal Docker pull address. The format is {*Repository address*}/{*Namespace name*}/{*Repository name*}.
domain_name	String	Domain name.
namespace	String	Organization name.
tags	Array of strings	Image tag list.
status	Boolean	(Reserved field) Status.
total_range	Integer	Total number of records.

- Example response

```
[
  {
    "name": "busybox",
    "category": "linux",
    "description": "this is a busybox repository",
    "size": 200977474,
    "is_public": false,
    "num_images": 2,
    "num_download": 0,
    "created_at": "2021-06-10T03:24:44.784402Z",
    "updated_at": "2021-06-10T03:40:59.199352Z",
    "logo": "",
    "url": "",
    "path": "{Repository address}/group/busybox",
    "internal_path": "{Repository address}/group/busybox",
    "domain_name": "root",
    "namespace": "group",
    "tags": [
      "latest",
      "log"
    ],
    "status": false,
    "total_range": 1
  }
]
```

Status Code

Status Code	Description
200	Request successful.
400	Request error. Error information is returned.

Status Code	Description
401	Authentication failed.
500	Internal error. Error information is returned.

Error Codes

For details, see **Error Codes**.

4.2.6 Viewing the List of Shared Images

Function

View the list of shared images.

URI

GET /v2/manage/shared-repositories

Table 4-26 Query parameters

Parameter	Mandatory	Type	Description
namespace	No	String	Organization name. An organization name contains 1 to 64 characters. It must start with a lowercase letter and end with a lowercase letter or digit. Only lowercase letters, digits, periods (.), underscores (_), and hyphens (-) are allowed. Periods, underscores, and hyphens cannot be placed next to each other. A maximum of two consecutive underscores are allowed.
name	No	String	Image repository name.
center	No	String	**self**: images shared by you **thirdparty**: images shared with you by others.
limit	No	String	Number of returned records. Ensure that the **offset** and **limit** parameters are used together. If this parameter is not specified, all records will be returned by default.

Parameter	Mandatory	Type	Description
offset	No	String	Start index. The value can be **0** or a positive integer multiple of the **limit** value. If this parameter is not specified, all records will be returned by default. Parameters **offset** and **limit** should always be used together.
order_column	No	String	Sorting by column. You can set this parameter to **updated_at** (sorting by update time). Parameters **order_column** and **order_type** should always be used together.
order_type	No	String	Sorting type. You can set this parameter to **desc** (descending sort) or **asc** (ascending sort). Parameters **order_column** and **order_type** should always be used together.
filter	No	String	Set this parameter to **center**::{*center*}|**name**::{*name*}|**limit**::{*limit*}|**offset**::{*offset*}|**namespace**::{*namespace*}|**order_column**::{*order_column*}|**order_type**::{*order_type*}. **center** can be set to **self** (images shared by you). **thirdparty** indicates images shared by others. **namespace** indicates the organization name. **name** indicates the image repository name. **limit** indicates the number of returned records. **offset** indicates the start index. **order_column** indicates sorting by column, which can be **name**, **updated_time**, or **tag_count**. **order_type** indicates the sorting type, which can be **desc** (descending order) or **asc** (ascending order).

Request

- Request parameters

  N/A

- Example request

```
GET https://{Endpoint}/v2/manage/shared-repositories?center=self&name=busybox
```

Response

- Response parameters

Table 4-27 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

Table 4-28 Response body parameter description

Parameter	Type	Description
[Array element]	Array of **objects**	Viewing the list of shared images.

Table 4-29 *[Array element]* parameters description

Parameter	Type	Description
name	String	Image repository name.
category	String	Image repository type. The value can be **app_server**, **linux**, **framework_app**, **database**, **lang**, **arm**, or **other**.
description	String	Image repository description.
size	Integer	Total size of the images in an image repository.

Parameter	Type	Description
is_public	Boolean	Whether the image is a public image. The value can be **true** or **false**.
num_images	Integer	Number of image tags in an image repository.
num_download	Integer	Download times.
created_at	String	Time when an image repository is created. It is the UTC standard time.
updated_at	String	Time when an image repository is updated. It is the UTC standard time.
logo	String	(Reserved field) Image repository logo address.
url	String	(Reserved field) URL of the image repository logo.
path	String	External Docker pull address. The format is {*Repository address*}/{*Namespace name*}/{*Repository name*}.
internal_path	String	Internal Docker pull address. The format is {*Repository address*}/{*Namespace name*}/{*Repository name*}.
domain_name	String	Domain name.
namespace	String	Organization name.
tags	Array of strings	Image tag list.
status	Boolean	● Query the images shared by a third party: Check whether the sharing is expired. ● Query the images shared by me: The default value is **false**, indicating that no images are shared.
total_range	Integer	Total number of records.

- Example response

```
[
  {
    "name": "busybox",
    "category": "other",
    "description": "",
    "size": 115645792,
    "is_public": false,
    "num_images": 1,
    "num_download": 0,
    "created_at": "2021-06-02T09:23:01.751202Z",
    "updated_at": "2021-06-10T07:24:35.204517Z",
    "logo": "",
    "url": "",
    "path": "{Repository address}/group/busybox",
    "internal_path": "{Repository address}/group/busybox",
    "domain_name": "domain",
    "namespace": "namespace",
    "tags": [
        "v1",
        "v2"
    ],
    "status": true,
    "total_range": 1
  }
]
```

Status Code

Status Code	Description
200	Request successful.
400	Request error. Error information is returned.
401	Authentication failed.
500	Internal error. Error information is returned.

Error Codes

For details, see **Error Codes**.

4.3 Image Tag Management

4.3.1 Querying the List of Image Repository Tags

Function

Query all image tags of an image repository.

URI

GET /v2/manage/namespaces/{namespace}/repos/{repository}/tags?offset={offset}&limit={limit}&order_column={order_column}&order_type={order_type}&tag={tag}

For details about parameters, see **Table 4-30**.

Table 4-30 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name
repository	Yes	String	Image repository name.

Table 4-31 Query parameters

Parameter	Mandatory	Type	Description
limit	No	String	Number of returned records. Parameters **offset** and **limit** should always be used together. If this parameter is not specified, all records will be returned by default.
offset	No	String	Start index. The value can be **0** or a positive integer multiple of the **limit** value. If this parameter is not specified, all records will be returned by default. Parameters **offset** and **limit** should always be used together.
order_column	No	String	Sorting by column. You can set this parameter to **updated_at** (sorting by update time). Parameters **order_column** and **order_type** should always be used together.
order_type	No	String	Sorting type. You can set this parameter to **desc** (descending sort) or **asc** (ascending sort). Parameters **order_column** and **order_type** should always be used together.
tag	No	String	Image tag name.

Parameter	Mandatory	Type	Description
filter	No	String	Set this parameter to **offset**::{*offset*}|**limit**::{*limit*}|**order_column**::{*order_column*}|**order_type**::{*order_type*}|**tag**::{*tag*}. **limit** indicates the number of returned records. **offset** indicates the start index. Parameters **offset** and **limit** should always be used together. **order_column** indicates sorting by column, which can be **updated_at** (sorting by update time). **order_type** indicates the sorting type, which can be **desc** (descending order) or **asc** (ascending order). **tag** indicates the image tag name.

Request

- Request parameters

Table 4-32 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

- Example request

```
GET https://{Endpoint}/v2/manage/namespaces/group/repos/busybox/tags
```

Response

- Response parameters

Status code: 200

Table 4-33 Response header parameters

Parameter	Type	Description
Content-Range	String	*Offset* (Start index) – *Count* (Number of records on the current page)/*Total* (Total number of records)

Table 4-34 Response body parameters

Parameter	Type	Description
[*Array*]	Array of **ShowReposTagResp** objects	Image tags.

Table 4-35 *[Array element]* parameters description

Parameter	Type	Description
id	Integer	ID
repo_id	Integer	Repository ID.
Tag	String	Image tag name.
image_id	String	Image ID.
manifest	String	Image manifest.
digest	String	SHA value of an image.
schema	Integer	Docker protocol version. The version can be **1** or **2**.
path	String	External image pull address. The format is {*Repository address*}/{*Namespace name*}/{*Repository name*}:{*Tag name*}.

Parameter	Type	Description
internal_path	String	Internal image pull address. The format is {*Repository address*}/{*Namespace name*}/{*Repository name*}:{*Tag name*}.
size	Integer	Image size. Value range: 0 to 9223372036854775807 Unit: byte
is_trusted	Boolean	By default, the value is **false**.
created	String	Time when an image is created. It is the UTC standard time. You need to calculate the offset based on the local time. For example, GMT+8 is 8 hours ahead of GMT.
updated	String	Time when an image is updated. It is the UTC standard time. You need to calculate the offset based on the local time. For example, GMT+8 is 8 hours ahead of GMT.
deleted	String	Time when an image was deleted.
domain_id	String	Account ID.
tag_type	Integer	0: manifest. 1: manifest list.

- Example response

```
[
    {
        "id": 0,
        "repo_id": 0,
        "Tag": "latest",
        "image_id": "741f24a795d6d93d7c6edd11780d63c13e16c39615dd9d223378a57a836f2ee6",
        "manifest": "{\"schemaVersion\":2,\"mediaType\":\"application/
vnd.docker.distribution.manifest.v2+json\",\"config\":{\"mediaType\":\"application/
vnd.docker.container.image.v1+json\",\"size\":1862,\"digest
\":\"sha256:741f24a795d6d93d7c6edd11780d63c13e16c39615dd9d223378a57a836f2ee6\"},\"layers\":
[{\"mediaType\":\"application/vnd.docker.image.rootfs.diff.tar.gzip\",\"size\":1292800,\"digest
\":\"sha256:8ac8bfaff55af948c796026ee867448c5b5b5d9dd3549f4006d9759b25d4a893\"},
{\"mediaType\":\"application/vnd.docker.image.rootfs.diff.tar.gzip\",\"size\":10240,\"digest
\":\"sha256:77ddbf3a9fe11e81761a0f9df43a28e3e6f29bbb53c0c8cf71cd7efa69729aed\"}]}",
        "digest": "sha256:57b605845a6367c34bfb6ea6477f16852f59aa1861a2b51d10ab77ae0a1dc9c3",
        "schema": 2,
        "path": "{Repository address}/group/busybox:latest",
        "internal_path": "10.125.0.198:20202/namespace/busybox:latest",
        "size": 1304902,
        "is_trusted": false,
        "created": "2018-07-06T06:18:55Z",
        "updated": "2018-07-06T06:18:55Z",
        "deleted": null,
        "domain_id": "0503dda878000fed0f75c0096d70a960",
        "tag_type": 0
    }
]
```

Status Code

Status Code	Description
200	All tags in the image repository are successfully queried.
400	Request error. Error information is returned.
401	Authentication failed.
404	The repository does not exist.
500	Internal error. Error information is returned.

Error Codes

For details, see **Error Codes**.

4.3.2 Deleting the Image with a Specified Tag

Function

Delete the image with a specified tag in an image repository.

URI

DELETE /v2/manage/namespaces/{*namespace*}/repos/{*repository*}/tags/{*tag*}

For details about parameters, see **Table 4-36**.

Table 4-36 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name
repository	Yes	String	Image repository name

Parameter	Mandatory	Type	Description
tag	Yes	String	Image tag name

Request

- Request parameters

Table 4-37 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

- Example request

```
DELETE https://{Endpoint}/v2/manage/namespaces/group/repos/busybox/tags/v1
```

Response

N/A

Status Code

Status Code	Description
204	The image with a specified tag is deleted successfully.
400	Request error. Error information is returned.
401	Authentication failed.
404	The repository or the image with a specified tag does not exist.

Status Code	Description
500	Internal error. Error information is returned.

Error Codes

For details, see **Error Codes**.

4.4 Shared Account Management

4.4.1 Creating an Account Used for Image Sharing

Function

Create an account used for image sharing. You can share your private images with other users, granting them permissions to pull the images.

URI

POST /v2/manage/namespaces/{*namespace*}/repositories/{*repository*}/access-domains

For details about parameters, see **Table 4-38**.

Table 4-38 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name. An organization name contains 1 to 64 characters. It must start with a lowercase letter and end with a lowercase letter or digit. Only lowercase letters, digits, periods (.), underscores (_), and hyphens (-) are allowed. Periods, underscores, and hyphens cannot be placed next to each other. A maximum of two consecutive underscores are allowed.
repository	Yes	String	Image repository name

Request

- Request parameters

Table 4-39 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

Table 4-40 Request body parameter description

Parameter	Mandatory	Type	Description
access_domain	Yes	String	Name of the account used for image sharing.
permit	Yes	String	Currently, only the read permission is supported.
deadline	Yes	String	Valid until (UTC). If the sharing is permanent, the value is **forever**. Otherwise, the sharing is valid until 00:00:00 of the next day.
description	No	String	Description.

- Example request

```
POST https://{Endpoint}/v2/manage/namespaces/group/repositories/busybox/access-domains
```

Body:

```
{
    "access_domain": "domain_name",
    "permit": "read",
    "deadline": "2021-10-01T16:00:00.000Z",
    "description": "description"
}
```

Response

- Response parameters

  N/A
- Example response

  None

Status Code

Status Code	Description
201	Creation successful.
400	Request error.
401	Authentication failed.
409	The repository has been shared.
500	Internal error.

Error Codes

For details, see **Error Codes**.

4.4.2 Deleting an Account Used for Image Sharing

Function

Delete an account used for image sharing.

URI

DELETE /v2/manage/namespaces/{*namespace*}/repositories/{*repository*}/access-domains/{*access_domain*}

For details about parameters, see **Table 4-41**.

Table 4-41 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name. An organization name contains 1 to 64 characters. It must start with a lowercase letter and end with a lowercase letter or digit. Only lowercase letters, digits, periods (.), underscores (_), and hyphens (-) are allowed. Periods, underscores, and hyphens cannot be placed next to each other. A maximum of two consecutive underscores are allowed.
repository	Yes	String	Image repository name.
access_domain	Yes	String	Name of the account used for image sharing.

Request

- Request parameters

Table 4-42 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

- Example request

```
DELETE https://{Endpoint}/v2/manage/namespaces/group/repositories/busybox/access-domains/
domain_name
```

Response

N/A

Status Code

Status Code	Description
204	Deleted successfully.
400	Request error.
401	Authentication failed.
500	Failed to complete the request because of an internal service error.

Error Codes

For details, see **Error Codes**.

4.4.3 Updating an Account Used for Image Sharing

Function

Update an account used for image sharing.

URI

PATCH /v2/manage/namespaces/{*namespace*}/repositories/{*repository*}/access-domains/{*access_domain*}

For details about parameters, see **Table 4-43**.

Table 4-43 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name
repository	Yes	String	Image repository name
access_domain	Yes	String	Name of the account used for image sharing

Request

- Request parameters

Table 4-44 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

Table 4-45 Request body parameter description

Parameter	Mandatory	Type	Description
permit	Yes	String	Currently, only the read permission is supported.
deadline	Yes	String	Valid until (UTC). If the sharing is permanent, the value is **forever**. Otherwise, the sharing is valid until 00:00:00 of the next day.
description	No	String	Description. This parameter is left blank by default.

- Example request

```
PATCH https://{Endpoint}/v2/manage/namespaces/group/repositories/busybox/access-domains/
domain_name
```

Body:

```
{
    "permit": "read",
    "deadline": "forever",
    "description": "description"
}
```

Response

N/A

Status Code

Status Code	Description
201	Modified successfully.
400	Request error.
401	Authentication failed.
500	Internal error.

4.4.4 Checking the Existence of an Account Used for Image Sharing

Function

Check whether an account used for image sharing exists.

URI

GET /v2/manage/namespaces/{*namespace*}/repositories/{*repository*}/access-domains/{*access_domain*}

For details about parameters, see **Table 4-46**.

Table 4-46 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name
repository	Yes	String	Image repository name
access_domain	Yes	String	Name of the account used for image sharing.

Request

- Request parameters

Table 4-47 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

- Example request

```
GET https://{Endpoint}/v2/manage/namespaces/group/repositories/busybox/access-domains/domain_name
```

Response

- Response parameters

  Status code: 200

Table 4-48 Response body parameter description

Parameter	Type	Description
exist	Boolean	**true**: Exist. **false**: Not exist.
namespace	String	Organization name.
repository	String	Image repository name.
access_domain	String	Name of the account used for image sharing.
permit	String	Permission.
deadline	String	Expiration time.
description	String	Description.
creator_id	String	Creator ID.
creator_name	String	Name of the creator.
created	String	Time when an image is created. It is the UTC standard time.
updated	String	Time when an image is updated. It is the UTC standard time.
status	Boolean	Status. true: valid. false: expired.

- Example response

```
{
   "exist": true,
   "namespace": "group",
   "repository": "busybox",
   "access_domain": "xxx",
   "permit": "read",
   "deadline": "2021-10-01T16:00:00Z",
   "description": "description",
   "creator_id": "0504186e6a8010e01f3ec009a7279baa",
   "creator_name": "xxx",
   "created": "2021-06-10T08:14:42.56632Z",
   "updated": "2021-06-10T08:14:42.566325Z",
   "status": true
}
```

Status Code

Status Code	Description
200	Query succeeded.
400	Request error.
401	Authentication failed.

Status Code	Description
500	Internal error.

Error Codes

For details, see **Error Codes**.

4.4.5 Obtaining the List of Accounts Used for Image Sharing

Function

Obtain the list of accounts used for image sharing.

URI

GET /v2/manage/namespaces/{*namespace*}/repositories/{*repository*}/access-domains

For details about parameters, see **Table 4-49**.

Table 4-49 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name. An organization name contains 1 to 64 characters. It must start with a lowercase letter and end with a lowercase letter or digit. Only lowercase letters, digits, periods (.), underscores (_), and hyphens (-) are allowed. Periods, underscores, and hyphens cannot be placed next to each other. A maximum of two consecutive underscores are allowed.
repository	Yes	String	Image repository name

Request

- Request parameters

Table 4-50 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

- Example request

```
GET https://{Endpoint}/v2/manage/namespaces/group/repositories/busybox/access-domains
```

NOTE

By default, 100 records will be returned.

Response

- Response parameters

Table 4-51 Response body parameter description

Parameter	Type	Description
[Array element]	Array of **objects**	Shared accounts.

Table 4-52 *[Array element]* parameter description

Parameter	Type	Description
namespace	String	Organization name.
repository	String	Image repository name.
access_domain	String	Name of the account used for image sharing.
permit	String	Permission.
deadline	String	Expiration time.
description	String	Description.

Parameter	Type	Description
creator_id	String	Creator ID.
creator_name	String	Name of the creator.
created	String	Time when an image was created. It is the UTC standard time. You need to calculate the offset based on the local time. For example, GMT +8 is 8 hours ahead the GMT time.
updated	String	Time when an image was updated. It is the UTC standard time. You need to calculate the offset based on the local time. For example, GMT +8 is 8 hours ahead the GMT time.
status	Boolean	Status. **true**: valid; **false**: expired

- Example response

```
[
  {
    "namespace": "group",
    "repository": "busybox",
    "access_domain": "swr",
    "permit": "read",
    "deadline": "2021-10-01T16:00:00Z",
    "description": "description",
    "creator_id": "fb3f175c1fd146ab8cdae3272be6107b",
    "creator_name": "group",
    "created": "2021-06-10T08:14:42.56632Z",
    "updated": "2021-06-10T08:14:42.566325Z",
    "status": true
  }
]
```

Status Code

Status Code	Description
200	The list of image sharing accounts is returned successfully.
400	Request error. Error information is returned.
401	Authentication failed.

Status Code	Description
500	Internal error. Error information is returned.

Error Codes

For details, see **Error Codes**.

4.5 API Versions

4.5.1 Querying All API Versions

Function

Query all available API versions of SWR.

URI

GET /

Request Parameters

Table 4-53 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

Response

- Response parameters

  Status code: 200

Table 4-54 Response body parameter description

Parameter	Type	Description
versions	Array of **objects**	A list of objects related to the version.

Table 4-55 versions parameter description

Parameter	Type	Description
id	String	Version ID (version number), for example, v2.
links	**Object**	API URL.
version	String	If the APIs of this version support microversions, set this parameter to the supported maximum microversion. If the microversion is not supported, leave this parameter blank.
status	String	Version status. The options are as follows: ● **CURRENT**: The version is the primary version. ● **SUPPORTED**: The version is an old version, but it is still supported. ● **DEPRECATED**: The version is a deprecated version, which may be deleted later.
updated	String	Version release time, which must be the UTC time. For example, the release time of v2 is **2014-06-28T12:20:21Z**.
min_version	String	If APIs of this version support microversions, set this parameter to the supported minimum microversion. If the microversion is not supported, leave this parameter blank.

Table 4-56 links parameter description

Parameter	Type	Description
href	String	Link
rel	String	Description

- Example response

```
{
  "versions": [
        {
            "id": "v2",
            "links":
                {
                    "href": "https://xxx",
                    "rel": "self"
                }
            "min_version": "2.0",
            "status": "CURRENT",
            "updated": "2020-07-09T00:00:00Z",
            "version": "2.26",
        }
    ]
}
```

Status Code

Status Code	Description
200	Request successful.
500	Failed to complete the request because of an internal service error.

Error Codes

For details, see **Error Codes**.

4.5.2 Querying a Specific API Version

Function

Query a specific API version of SWR.

URI

GET /{*api_version*}

For details about parameters, see **Table 4-57**.

Table 4-57 Parameter description

Parameter	Mandatory	Type	Description
api_version	Yes	String	API version

Request

- Request parameters

Table 4-58 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

- Example request

```
GET https://{Endpoint}/v2
```

Response

- Response parameters

Table 4-59 Response body parameter description

Parameter	Type	Description
version	**Object**	A list of objects related to the version.

Table 4-60 version parameter description

Parameter	Type	Description
id	String	Version ID (version number), for example, v2.
links	**Object**	API URL.
version	String	If the APIs of this version support microversions, set this parameter to the supported maximum microversion. If the microversion is not supported, leave this parameter blank.

Parameter	Type	Description
status	String	Version status. The options are as follows: ● **CURRENT**: The version is the primary version. ● **SUPPORTED**: The version is an old version, but it is still supported. ● **DEPRECATED**: The version is a deprecated version, which may be deleted later.
updated	String	Version release time, which must be the UTC time. For example, the release time of v2 is **2018-06-28T12:20:21Z**.
min_version	String	If APIs of this version support microversions, set this parameter to the supported minimum microversion. If the microversion is not supported, leave this parameter blank.

Table 4-61 links parameter description

Parameter	Type	Description
href	String	Link
rel	String	Description

- Example response

```
{
    "version": {
        "id": "v2",
        "links":
            {
                "href": "https://xxx",
                "rel": "self"
            }
        "min_version": "2.0",
        "status": "CURRENT",
        "updated": "2017-12-09T00:00:00Z",
        "version": "2.26"
    }
}
```

Status Code

Status Code	Description
200	Request successful.
500	Failed to complete the request because of an internal service error.

Error Codes

For details, see **Error Codes**.

4.6 Organization Permission Management

4.6.1 Creating Organization Permissions

Function

Grant permissions of an organization to certain users so that they can manage, edit, and read images from the organization.

Constraints

None

URI

POST /v2/manage/namespaces/{*namespace*}/access

Table 4-62 describes the parameters.

Table 4-62 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name.

Request

- Request parameters

Table 4-63 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.

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

Table 4-64 Request body parameters

Parameter	Mandatory	Type	Description
[Array element]	Yes	Array of **objects**	Information required for creating organization permissions.

Table 4-65 [Array element]

Parameter	Mandatory	Type	Description
user_id	Yes	String	User ID. Obtain it from IAM.
user_name	Yes	String	Username. Obtain it from IAM.
auth	Yes	Integer	User permission ● 7: Manage ● 3: Write ● 1: Read

- Example request

```
POST https://{endpoint}/v2/manage/namespaces/{namespace}/access

[ {
  "user_id" : "fb3f175c1fd146ab8cdae3272be6107b",
  "user_name" : "user01",
  "auth" : 1
} ]
```

Response

- Response parameters

  N/A

- Example response

```
None
```

Status Code

Status Code	Description
201	Creation successful.
400	Request error.
401	Authentication failed.
404	The organization does not exist.
409	The organization permission already exists.
500	Internal error.

Error Codes

For details, see **Error Codes**.

4.6.2 Deleting Organization Permissions

Function

Delete the organization operation permissions of certain users.

URI

DELETE /v2/manage/namespaces/{*namespace*}/access

Table 4-66 describes the parameters.

Table 4-66 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name.

Request

- Request parameters

Table 4-67 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

Table 4-68 Request body parameter description

Parameter	Mandatory	Type	Description
[Array element]	Yes	Array of strings	ID list of users whose permissions need to be deleted. Obtain the list from IAM.

- Example request

```
DELETE https://{Endpoint}/v2/manage/namespaces/group/access

["fb3f175c1fd146ab8cdae3272be6107b"]
```

Response

N/A

Status Code

Status Code	Description
204	Deleted successfully.
400	Request error.
401	Authentication failed.
404	The organization does not exist.
500	Internal error.

Error Codes

For details, see **Error Codes**.

4.6.3 Updating Organization Permissions

Function

Update the organization operation permissions for certain users.

URI

PATCH /v2/manage/namespaces/{*namespace*}/access

For details about parameters, see **Table 4-69**.

Table 4-69 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name.

Request

- Request parameters

Table 4-70 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

Table 4-71 Request body parameter description

Parameter	Mandatory	Type	Description
[Array element]	Yes	Array of **objects**	Information required for updating organization permissions

Table 4-72 [Array element]

Parameter	Mandatory	Type	Description
user_id	Yes	String	User ID. Obtain it from IAM.
user_name	Yes	String	Username. Obtain it from IAM.
auth	Yes	Integer	User permission ● 7: Manage ● 3: Write ● 1: Read

- Example request

```
PATCH https://{endpoint}/v2/manage/namespaces/{namespace}/access

[ {
  "user_id" : "fb3f175c1fd146ab8cdae3272be6107b",
  "user_name" : "user01",
  "auth" : 7
} ]
```

Response

- Response parameters

  N/A

- Example response

```
{}
```

Status Code

Status Code	Description
201	Updated successfully.
400	Request error.
401	Authentication failed.
404	The organization does not exist.
500	Internal error.

Error Codes

For details, see **Error Codes**.

4.6.4 Querying Organization Permissions

Function

Query organization permissions.

URI

GET /v2/manage/namespaces/{namespace}/access

For details about parameters, see **Table 4-73**.

Table 4-73 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name.

Request

- Request parameters

Table 4-74 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

- Example request

```
GET https://{Endpoint}/v2/manage/namespaces/group/access
```

Response

- Response parameters

  Status code: 200

Table 4-75 Response body parameters

Parameter	Type	Description
id	Integer	Permission ID.
name	String	Organization name.
creator_name	String	Organization creator.
self_auth	**Object**	Permissions of the current user.
others_auths	Array of objects	Permissions of other users.

Table 4-76 self_auth parameter description

Parameter	Type	Description
user_id	String	User ID.
user_name	String	Username.
auth	Integer	User permission ● 7: Manage ● 3: Write ● 1: Read

- Example response

```
{
    "id": 1334795,
    "name": "group",
    "creator_name": "user",
    "self_auth": {
        "user_id": "050b12577f00269a1fcfc01f65239697",
        "user_name": "user",
        "auth": 7
    },
    "others_auths": [
        {
            "user_id": "06d89c3b6d800f2d1f28c01f0d882285",
            "user_name": "user_01",
            "auth": 1
        },
        {
            "user_id": "050b12577f00269a1fcfc01f65239697",
            "user_name": "user",
            "auth": 7
        }
    ]
}
```

Status Code

Status Code	Description
200	Request successful.
400	Request error.
401	Authentication failed.
404	The organization does not exist.
500	Internal error.

Error Codes

For details, see **Error Codes**.

4.7 Image Permission Management

4.7.1 Creating Image Permissions

Function

Grant permissions of an image to certain users so that they can manage, edit, and read the image.

URI

POST /v2/manage/namespaces/{*namespace*}/repos/{*repository*}/access

For details about parameters, see **Table 4-77**.

Table 4-77 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name.
repository	Yes	String	Image name.

Request

- Request parameters

Table 4-78 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

Table 4-79 Request body parameter description

Parameter	Mandatory	Type	Description.
[Array element]	Yes	Array of **objects**	User list

Table 4-80 *[Array element]* parameters decription

Parameter	Mandatory	Type	Description
user_id	Yes	String	User ID.
user_name	Yes	String	Username.
auth	Yes	Integer	User permission that is configured. ● 7: Manage ● 3: Write ● 1: Read

- Example request

```
POST https://{endpoint}/v2/manage/namespaces/{namespace}/repos/{repository}/access

[ {
  "user_id" : "fb3f175c1fd146ab8cdae3272be6107b",
  "user_name" : "user01",
  "auth" : 1
} ]
```

Response

- Response parameters

  N/A

- Example response

  None

Status Code

Status Code	Description
201	Creation successful.
400	Request error.
401	Authentication failed.
404	The image does not exist.
500	Internal error.

Error Codes

For details, see **Error Codes**.

4.7.2 Deleting Image Permissions

Function

Delete the image operation permissions of certain users.

Constraints

None

URI

DELETE /v2/manage/namespaces/{*namespace*}/repos/{*repository*}/access

For details about parameters, see **Table 4-81**.

Table 4-81 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name.
repository	Yes	String	Image name.

Request

- Request parameters

Table 4-82 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

Table 4-83 Request body parameter description

Parameter	Mandatory	Type	Description
[Array element]	Yes	Array of strings	ID array of users whose permissions need to be deleted.

- Example request

```
DELETE https://{Endpoint}/v2/manage/namespaces/group/repos/busybox/access

[ "fb3f175c1fd146ab8cdae3272be6107b" ]
```

Response

N/A

Status Code

Status Code	Description
204	Deletion succeeded.
400	Request error.
401	Authentication failed.
404	The image does not exist.

Status Code	Description
500	Internal error.

Error Codes

For details, see **Error Codes**.

4.7.3 Updating Image Permissions

Function

Update the image operation permissions for certain users.

Constraints

None

URI

PATCH /v2/manage/namespaces/{*namespace*}/repos/{*repository*}/access

For details about parameters, see **Table 4-84**.

Table 4-84 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name
repository	Yes	String	Image name

Request

- Request parameters

Table 4-85 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.

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

Table 4-86 Request body parameter description

Parameter	Mandatory	Type	Description
[Array element]	Yes	Array of **objects**	Information about the image permission to be updated.

Table 4-87 *[Array element]* parameter description

Parameter	Mandatory	Type	Description
user_id	Yes	String	User ID. Obtain it from IAM.
user_name	Yes	String	Username. Obtain it from IAM.
auth	Yes	Integer	User permission that is configured. ● 7: Manage ● 3: Write ● 1: Read

- Example request

```
PATCH https://{Endpoint}/v2/manage/namespaces/group/repos/busybox/access

[ {
  "user_id" : "fb3f175c1fd146ab8cdae3272be6107b",
  "user_name" : "user01",
  "auth" : 7
} ]
```

Response

- Response parameters

  N/A

- Example response

  None

Status Code

Status Code	Description
201	Updated successfully.
400	Request error.
401	Authentication failed.
404	The image or the image permission does not exist.
500	Internal error.

Error Codes

For details, see **Error Codes**.

4.7.4 Querying Image Permissions

Function

Query image permissions.

Constraints

None

URI

GET /v2/manage/namespaces/{*namespace*}/repos/{*repository*}/access

For details about parameters, see **Table 4-88**.

Table 4-88 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name
repository	Yes	String	Image name

Request

- Request parameters

Table 4-89 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

- Example request

```
GET https://{Endpoint}/v2/manage/namespaces/group/repos/busybox/access
```

Response

- Response parameters

Table 4-90 Response body parameter description

Parameter	Type	Description
id	Integer	Permission ID.
name	String	Image name.
self_auth	**Object**	Permissions of the current user.
others_auths	Array of **objects**	Permissions of other users.

Table 4-91 self_auth parameter description

Parameter	Type	Description
user_id	String	User ID
user_name	String	Username

Parameter	Type	Description
auth	Integer	User permission ● 7: Manage ● 3: Write ● 1: Read

Table 4-92 others_auths parameter description

Parameter	Type	Description
user_id	String	User ID
user_name	String	Username
auth	Integer	User permission ● 7: Manage ● 3: Write ● 1: Read

- Example response

```
{
    "id": 1422,
    "name": "busybox",
    "self_auth": {
        "user_id": "3059e6b5562241fda3fa441cca6f228b",
        "user_name": "admin",
        "auth": 7
    },
    "others_auths": [
        {
            "user_id": "fb3f175c1fd146ab8cdae3272be6107b",
            "user_name": "user",
            "auth": 1
        }
    ]
}
```

Status Code

Status Code	Description
200	Query succeeded.
400	Request error.
401	Authentication failed.
404	The image or the image permission does not exist.
500	Internal error.

Error Codes

For details, see **Error Codes**.

4.8 Trigger Management

4.8.1 Creating a Trigger

Function

Create a trigger.

URI

POST /v2/manage/namespaces/{namespace}/repos/{repository}/triggers

Table 4-93 describes the parameters.

Table 4-93 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name
repository	Yes	String	Image repository name

Request

- Request parameters

Table 4-94 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

Table 4-95 Request body parameter description

Parameter	Mandatory	Type	Description
action	Yes	String	Action to trigger. The value is **update**.
app_type	Yes	String	Application type. The value can be **deployments** or **statefulsets**.
application	Yes	String	Application name.
cluster_id	No	String	Cluster ID. If **trigger_mode** is set to **cci**, leave this parameter blank.
cluster_name	No	String	Cluster name. If **trigger_mode** is set to **cci**, leave this parameter blank.
cluster_ns	Yes	String	Namespace where the application is located.
condition	Yes	String	Trigger condition. ● When **trigger_type** is set to **all**, set this parameter to **.***. ● When **trigger_type** is set to **tag**, set this parameter to specific image tags separated by semicolons (;). ● When **trigger_type** is set to **regular**, set this parameter to a regular expression.
container	No	String	Name of the container to be updated. By default, all containers using this image are updated.
enable	Yes	String	Whether to enable the trigger.
name	Yes	String	Trigger name.
trigger_mode	No	String	Trigger type. The value can be **cce** or **cci**. The default value is **cce**.
trigger_type	Yes	String	Trigger condition. The value can be **all** (all tags), **tag** (specific tag), or **regular** (tags matching regular expression).

- Example request

```
POST https://{Endpoint}/v2/manage/namespaces/group/repos/busybox/triggers

{
   "action": "update",
   "app_type": "deployments",
   "application": "adsfa",
   "cluster_id": "5b28c12f-dc10-11e9-97b3-0255ac1001b5",
   "cluster_name": "test",
   "cluster_ns": "default",
   "condition": ".*",
   "container": "",
   "enable": "true",
   "name": "test",
   "trigger_mode": "cce",
   "trigger_type": "all"
}
```

Response

- Response parameters

  N/A

- Example response

  N/A

Status Code

Status Code	Description
201	Creation successful.
400	Request error.
401	Authentication failed.
404	The organization does not exist.
500	Failed to complete the request because of an internal service error.

Error Codes

For details, see **Error Codes**.

4.8.2 Obtaining the Trigger List of a Specific Image Repository

Function

Obtain the trigger list of a specific image repository.

URI

GET /v2/manage/namespaces/{namespace}/repos/{repository}/triggers

Table 4-96 describes the parameters.

Table 4-96 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name
repository	Yes	String	Image repository name

Request

- Request parameters

Table 4-97 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

- Example request

```
GET https://{Endpoint}/v2/manage/namespaces/group/repos/busybox/triggers
```

Response

- Response parameters

Status code: 200

Table 4-98 Response body parameter description

Parameter	Type	Description
[Array element]	Array of **objects**	Trigger list

Table 4-99 [Array element]

Parameter	Type	Description
action	String	Action to trigger. The value is **update**.
app_type	String	Application type. The value can be **deployments** or **statefulsets**.
application	String	Application name.
cluster_id	String	Cluster ID. If **trigger_mode** is set to **cci**, leave this parameter blank.

Parameter	Type	Description
cluster_name	String	Cluster name. If **trigger_mode** is set to **cci**, leave this parameter blank.
cluster_ns	String	Namespace where the application is located.
condition	String	Trigger condition. ● When **trigger_type** is set to **all**, set this parameter to **.***. ● When **trigger_type** is set to **tag**, set this parameter to specific image tags separated by semicolons (;). ● When **trigger_type** is set to **regular**, set this parameter to a regular expression.
container	String	Name of the container to be updated. By default, all containers using this image are updated.
created_at	String	Creation time.
creator_name	String	Creator.
enable	String	Whether to enable the trigger.
name	String	Trigger name.
trigger_history	Array of **objects**	(Reserved field) This parameter is not in use.
trigger_mode	String	Trigger type. The value can be **cce** or **cci**.
trigger_type	String	Trigger condition. The value can be **all** (all tags), **tag** (specific tag), or **regular** (tags matching regular expression).

Table 4-100 trigger_history parameter description

Parameter	Type	Description
action	String	Action to trigger. The value is **update**.
app_type	String	Application type. The value can be **deployments** or **statefulsets**.
application	String	Application name.
cluster_id	String	Cluster ID. If **trigger_mode** is set to **cci**, leave this parameter blank.
cluster_name	String	Cluster name. If **trigger_mode** is set to **cci**, leave this parameter blank.

Parameter	Type	Description
cluster_ns	String	Namespace where the application is located.
condition	String	Trigger condition. ● When **trigger_type** is set to **all**, set this parameter to **.***. ● When **trigger_type** is set to **tag**, set this parameter to specific image tags separated by semicolons (;). ● When **trigger_type** is set to **regular**, set this parameter to a regular expression.
container	String	Name of the container to be updated. By default, all containers using this image are updated.
created_at	String	Creation time.
creator_name	String	Creator.
detail	String	Details.
result	String	Update result. The value can be **success** or **failed**.
tag	String	Triggered tag.

- Example response

  Status code: 200

  The trigger list is returned successfully.

```
[
  {
    "action": "update",
    "app_type": "deployments",
    "application": "abcde",
    "cluster_id": "******************",
    "cluster_name": "test123",
    "cluster_ns": "default",
    "condition": ".*",
    "container": "",
    "created_at": "2020-04-16T02:04:55.922236Z",
    "creator_name": "************",
    "enable": "true",
    "name": "test1",
    "trigger_history": null,
    "trigger_mode": "cce",
    "trigger_type": "all"
  }
]
```

Status Code

Status Code	Description
200	Request successful.
400	Request error.
401	Authentication failed.
404	The organization does not exist.
500	Failed to complete the request because of an internal service error.

Error Codes

For details, see **Error Codes**.

4.8.3 Deleting a Trigger

Function

Delete a trigger.

URI

DELETE /v2/manage/namespaces/{namespace}/repos/{repository}/triggers/{trigger}

Table 4-101 describes the parameters.

Table 4-101 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name
repository	Yes	String	Image repository name
trigger	Yes	String	Trigger name

Request

- Request parameters

Table 4-102 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

- Example request

```
DELETE https://{Endpoint}/v2/manage/namespaces/group/repos/busybox/triggers/test1
```

Response

N/A

Status Code

Status Code	Description
204	Deleted successfully.
400	Request error.
401	Authentication failed.
404	The organization does not exist.
500	Failed to complete the request because of an internal service error.

Error Codes

For details, see **Error Codes**.

4.8.4 Obtaining Information About a Trigger

Function

Obtain information about a trigger.

URI

GET /v2/manage/namespaces/{namespace}/repos/{repository}/triggers/{trigger}

Table 4-103 describes the parameters.

Table 4-103 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name
repository	Yes	String	Image repository name
trigger	Yes	String	Trigger name

Request

- Request parameters

Table 4-104 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

- Example request

```
GET https://{Endpoint}/v2/manage/namespaces/group/repos/busybox/triggers/test
```

Response

- Response parameters

  Status code: 200

Table 4-105 Response body parameter description

Parameter	Type	Description
action	String	Action to trigger. The value can be **update**.
app_type	String	Application type. The value can be **deployments** or **statefulsets**.
application	String	Application name.
cluster_id	String	Cluster ID. If **trigger_mode** is set to **cci**, leave this parameter blank.
cluster_name	String	Cluster name. If **trigger_mode** is set to **cci**, leave this parameter blank.
cluster_ns	String	Namespace where the application is located.
condition	String	Trigger condition. ● When **trigger_type** is set to **all**, set this parameter to **.***. ● When **trigger_type** is set to **tag**, set this parameter to specific image tags separated by semicolons (;). ● When **trigger_type** is set to **regular**, set this parameter to a regular expression.
container	String	Name of the container to be updated. By default, all containers using this image are updated.
created_at	String	Creation time.
creator_name	String	Creator.
enable	String	Whether to enable the trigger.
name	String	Trigger name.
trigger_history	Array of **objects**	Trigger history.
trigger_mode	String	Trigger type. The value can be **cce** or **cci**.
trigger_type	String	Trigger condition. The value can be **all**, **tag**, or **regular**.

Table 4-106 Parameter description

Parameter	Type	Description
action	String	Action to trigger. The value can be **update**.

Parameter	Type	Description
app_type	String	Application type. The value can be **deployments** or **statefulsets**.
application	String	Application name.
cluster_id	String	(Reserved field) Cluster ID.
cluster_name	String	(Reserved field) Cluster name.
cluster_ns	String	(Reserved field) Namespace where the application is located.
condition	String	Trigger condition. ● When **trigger_type** is set to **all**, set this parameter to **.***. ● When **trigger_type** is set to **tag**, set this parameter to specific image tags separated by semicolons (;). ● When **trigger_type** is set to **regular**, set this parameter to a regular expression.
container	String	Name of the container to be updated. By default, all containers using this image are updated.
created_at	String	Creation time.
creator_name	String	Creator.
detail	String	Details.
result	String	Update result. The value can be **success** or **failed**.
tag	String	Image tag that triggers the update.

- Example response

```
{
    "action": "update",
    "app_type": "deployments",
    "application": "cci-deployment-20204161",
    "cluster_id": "",
    "cluster_name": "",
    "cluster_ns": "cci-namespace-21539491",
    "condition": ".*",
    "container": "",
    "created_at": "2020-04-16T01:35:08.639589Z",
    "creator_name": "paas_swr_z00232859",
    "enable": "true",
    "name": "test",
    "trigger_history": [
        {
            "action": "update",
            "app_type": "deployments",
            "application": "cci-deployment-20204161",
            "cluster_id": "",
            "cluster_name": "",
            "cluster_ns": "",
            "condition": ".*",
            "container": "",
            "created_at": "2020-04-16T01:36:36.155119Z",
            "creator_name": "************",
            "detail": "xxxxxxxxxxxxxx",
            "result": "failed",
            "tag": "test"
        }
    ],
    "trigger_mode": "cci",
    "trigger_type": "all"
}
```

Status Code

Status Code	Description
200	Request successful.
400	Request error.
401	Authentication failed.
404	The organization does not exist.
500	Failed to complete the request because of an internal service error.

Error Codes

For details, see **Error Codes**.

4.8.5 Updating Trigger Settings

Function

Update the status of a trigger.

URI

PATCH /v2/manage/namespaces/{namespace}/repos/{repository}/triggers/{trigger}

Table 4-107 describes the parameters.

Table 4-107 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name
repository	Yes	String	Image repository name
trigger	Yes	String	Trigger name

Request

- Request parameters

Table 4-108 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

Table 4-109 Request body parameters

Parameter	Mandatory	Type	Description
enable	Yes	String	Whether to enable the trigger. The value can be **true**, which indicates enabling the trigger, and **false**, which indicates disabling the trigger.

- Example request

```
PATCH https://{Endpoint}/v2/manage/namespaces/group/repos/busybox/triggers/test

{
   "enable": "true"
}
```

Response

- Response parameters

  N/A

- Example response

  N/A

Status Code

Status Code	Description
201	Request successful.
400	Request error.
401	Authentication failed.
404	The organization does not exist.
500	Failed to complete the request because of an internal service error.

Error Codes

For details, see **Error Codes**.

4.9 Image Retention Policy Management

4.9.1 Adding an Image Retention Policy

Function

Add an image retention policy.

URI

POST /v2/manage/namespaces/{namespace}/repos/{repository}/retentions

Table 4-110 describes the parameters.

Table 4-110 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name.
repository	Yes	String	Image repository name.

Request

- Request parameters

Table 4-111 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

Table 4-112 Request body parameters

Parameter	Mandatory	Type	Description
algorithm	Yes	String	Retention policy matching rule. The value is **or**.
rules	Yes	Array of **objects**	Image retention policy.

Table 4-113 rules parameter description

Parameter	Mandatory	Type	Description
template	Yes	String	Retention policy type. The value can be **date_rule** (number of days) or **tag_rule** (number of tags).
params	Yes	Object	● If **template** is set to **date_rule**, set **params** to **{"days": "*xxx*"}**. ● If **template** is set to **tag_rule**, set **params** to **{"num": "*xxx*"}**.
tag_selectors	Yes	Array of **objects**	Image tags that are not counted in the retention policy.

Table 4-114 tag_selectors parameter description

Parameter	Mandatory	Type	Description
kind	Yes	String	Matching rule. The value can be **label** or **regexp**.
pattern	Yes	String	● If **kind** is set to **label**, set this parameter to specific image tags. ● If **kind** is set to **regexp**, set this parameter to a regular expression.

- Example request

```
POST https://{Endpoint}/v2/manage/namespaces/group/repos/busybox/retentions

{
    "algorithm": "or",
    "rules": [
        {
            "template": "date_rule",
            "params": {
                "days": "30"
            },
            "tag_selectors": [
                {
                    "kind": "label",
                    "pattern": "v5"
                },
                {
                    "kind": "label",
                    "pattern": "1.0.1"
                },
                {
                    "kind": "regexp",
                    "pattern": "^123$"
                }
            ]
        }
    ]
}
```

Response

- Response parameters

Table 4-115 Response body parameter description

Parameter	Type	Description
id	Integer	Rule ID.

- Example response

  Status code: 201

```
{"id": 34}
```

Status Code

Status Code	Description
201	Creation successful.
400	Request error.
401	Authentication failed.
404	The organization does not exist.
500	Internal error.

Error Codes

For details, see **Error Codes**.

4.9.2 Obtaining the List of Image Retention Policy

Function

Obtain the list of image retention policy.

URI

GET /v2/manage/namespaces/{namespace}/repos/{repository}/retentions

Table 4-116 describes the parameters.

Table 4-116 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name.
repository	Yes	String	Image repository name.

Request

- Request parameters

Table 4-117 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

- Example request

```
GET https://{Endpoint}/v2/manage/namespaces/group/repos/busybox/retentions
```

NOTE

By default, 100 records will be returned.

Response

- Response parameters

  Status code: 200

Table 4-118 Response body parameter description

Parameter	Type	Description.
[Array element]	Array of **objects**	Obtaining the list of image retention policy.

Table 4-119 *[Array element]* parameters description

Parameter	Type	Description
algorithm	String	Retention policy matching rule. The value is **or**.
id	Integer	Rule ID.
rules	Array of **objects**	Image retention policy.
scope	String	Reserved field.

Table 4-120 rules parameter description

Parameter	Type	Description
template	String	Retention policy type. The value can be **date_rule** (number of days) or **tag_rule** (number of tags).
params	Object	- If **template** is set to **date_rule**, set **params** to **{"days": "*xxx*"}**. - If **template** is set to **tag_rule**, set **params** to **{"num": "*xxx*"}**.
tag_selectors	Array of **objects**	Image tags that are not counted in the retention policy.

Table 4-121 tag_selectors parameter description

Parameter	Type	Description
kind	String	Matching rule. The value can be **label** or **regexp**.
pattern	String	- If **kind** is set to **label**, set this parameter to specific image tags. - If **kind** is set to **regexp**, set this parameter to a regular expression.

- Example response

  Status code: 200

```
[
   {
      "algorithm": "or",
      "id": 1093,
      "rules": [
         {
            "template": "date_rule",
            "params": {
               "days": "30"
            },
            "tag_selectors": [
               {
                  "kind": "label",
                  "pattern": "v5"
               },
               {
                  "kind": "label",
                  "pattern": "1.0.1"
               },
               {
                  "kind": "regexp",
                  "pattern": "^123$"
               }
            ]
         }
      ],
      "scope": ""
```

```
  }
]
```

Status Code

Status Code	Description
200	Request successful.
400	Request error.
401	Authentication failed.
404	The organization does not exist.
500	Internal error.

Error Codes

For details, see **Error Codes**.

4.9.3 Deleting an Image Retention Policy

Function

Delete an image retention policy.

URI

DELETE /v2/manage/namespaces/{namespace}/repos/{repository}/retentions/{retention_id}

Table 4-122 describes the parameters.

Table 4-122 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name
repository	Yes	String	Image repository name
retention_id	Yes	String	Image retention policy ID

Request

- Request parameters

Table 4-123 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

- Example request

```
DELETE https://{Endpoint}/v2/manage/namespaces/group/repos/busybox/retentions/1093
```

Response

- Response parameters

  N/A

- Example response

  None

Status Code

Status Code	Description
200	Deleted successfully.
400	Request error.
401	Authentication failed.
404	The organization does not exist.
500	Failed to complete the request because of an internal service error.

Error Codes

For details, see **Error Codes**.

4.9.4 Obtaining an Image Retention Policy Record

Function

Obtain the details of an image retention policy.

URI

GET /v2/manage/namespaces/{namespace}/repos/{repository}/retentions/{retention_id}

Table 4-124 describes the parameters.

Table 4-124 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name.
repository	Yes	String	Image repository name.
retention_id	Yes	String	Image retention policy ID.

Request

- Request parameters

Table 4-125 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

- Example request

```
GET https://{Endpoint}/v2/manage/namespaces/group/repos/busybox/retentions/1093
```

Response

- Response parameters

  Status code: 200

Table 4-126 Response body parameter description

Parameter	Type	Description
algorithm	String	Retention policy matching rule. The value is **or**.
id	Integer	Rule ID.
rules	Array of **objects**	Image retention policy.
scope	String	Reserved field.

Table 4-127 rules parameter description

Parameter	Type	Description
template	String	Retention policy type. The value can be **date_rule** (number of days) or **tag_rule** (number of tags).
params	Object	● If **template** is set to **date_rule**, set **params** to **{"days": "*xxx*"}**. ● If **template** is set to **tag_rule**, set **params** to **{"num": "*xxx*"}**.
tag_selectors	Array of **objects**	Image tags that are not counted in the retention policy.

Table 4-128 tag_selectors parameter description

Parameter	Type	Description
kind	String	Matching rule. The value can be **label** or **regexp**.
pattern	String	● If **kind** is set to **label**, set this parameter to specific image tags. ● If **kind** is set to **regexp**, set this parameter to a regular expression.

- Example response

  Status code: 200

  The image retention policy record is returned successfully.

```
{
    "algorithm": "or",
    "id": 1093,
    "rules": [
        {
            "template": "date_rule",
            "params": {
                "days": "30"
            },
            "tag_selectors": [
                {
                    "kind": "label",
                    "pattern": "v5"
                },
                {
                    "kind": "label",
                    "pattern": "1.0.1"
                },
                {
                    "kind": "regexp",
                    "pattern": "^123$"
                }
            ]
        }
    ],
    "scope": ""
}
```

Status Code

Status Code	Description
200	Request successful.
400	Request error.
401	Authentication failed.
404	The organization does not exist.
500	Internal error.

Error Codes

For details, see **Error Codes**.

4.9.5 Modifying an Image Retention Policy

Function

Modify an image retention policy.

URI

PATCH /v2/manage/namespaces/{namespace}/repos/{repository}/retentions/{retention_id}

Table 4-129 describes the parameters.

Table 4-129 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name
repository	Yes	String	Image repository name
retention_id	Yes	String	Image retention policy ID

Request

- Request parameters

Table 4-130 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

Table 4-131 Request body parameters

Parameter	Mandatory	Type	Description
algorithm	Yes	String	Retention policy matching rule. The value is **or**.
rules	Yes	Array of **objects**	Image retention policy.

Table 4-132 rules parameter description

Parameter	Mandatory	Type	Description
template	Yes	String	Retention policy type. The value can be set **date_rule** and **tag_rule**.
params	Yes	Object	• If **template** is set to **date_rule**, set **params** to **{"days": "*xxx*"}**. • If **template** is set to **tag_rule**, set **params** to **{"num": "*xxx*"}**.
tag_selectors	Yes	Array of **objects**	Image tags that are not counted in the retention policy.

Table 4-133 tag_selectors parameter description

Parameter	Mandatory	Type	Description
kind	Yes	String	Matching rule. The value can be **label** or **regexp**.
pattern	Yes	String	• If **kind** is set to **label**, set this parameter to specific image tags. • If **kind** is set to **regexp**, set this parameter to a regular expression.

- Example request

```
PATCH https://{Endpoint}/v2/manage/namespaces/group/repos/busybox/retentions/1093

{
    "algorithm": "or",
    "rules": [
        {
            "template": "date_rule",
            "params": {
                "days": "30"
            },
            "tag_selectors": [
                {
                    "kind": "label",
                    "pattern": "v5"
                },
                {
                    "kind": "label",
                    "pattern": "1.0.1"
                },
                {
                    "kind": "regexp",
                    "pattern": "^123$"
                }
            ]
        }
    ]
}
```

Response

- Response parameters

  N/A

- Example response

  N/A

Status Code

Status Code	Description
201	Modified successfully.
400	Request error.
401	Authentication failed.
404	The organization does not exist.
500	Failed to complete the request because of an internal service error.

Error Codes

For details, see **Error Codes**.

4.9.6 Obtaining Image Retention Records

Function

Obtain image retention records.

URI

GET /v2/manage/namespaces/{namespace}/repos/{repository}/retentions/histories?offset={offset}&limit={limit}

Table 4-134 describes the parameters.

Table 4-134 Parameter description

Parameter	Mandatory	Type	Description
namespace	Yes	String	Organization name.
repository	Yes	String	Image repository name.

Table 4-135 Query parameters

Parameter	Mandatory	Type	Description
filter	No	String	Set this parameter to **limit**::{*limit*}|**offset**::{*offset*}. **limit** indicates the number of returned records. **offset** indicates the start index. Parameters **offset** and **limit** should always be used together.

Request

- Request parameters

Table 4-136 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json** or **charset=utf-8 application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling an IAM API. The value of **X-Subject-Token** in the response header is the user token.

- Example request

```
GET https://{Endpoint}/v2/manage/namespaces/group/repos/busybox/retentions/histories
```

Response

- Response parameters

  Status code: 200

Table 4-137 Response header parameter description

Parameter	Type	Description
Content-Range	String	*Offset* (Start index) – *Count* (Number of records on the current page)/*Total* (Total number of records)

NOTE

If the **offset** and **limit** parameters are transferred in the request, **Content-Range** will be added to the response header.

Table 4-138 Response body parameter description

Parameter	Type	Description
retention_log	Array of **objects**	Image retention log.
total	Integer	Total number.

Table 4-139 retention_log parameter description

Parameter	Type	Description
created_at	String	Creation time
id	Integer	ID.
namespace	String	Organization name.
repo	String	Image repository name.
retention_id	Integer	Image retention policy ID.
rule_type	String	Policy.
tag	String	Image tag.

- Example response

  Status code: 200

  The image retention records is returned successfully.

```
{
    "retention_log": [
        {
            "created_at": "2020-04-17T08:01:09.658309Z",
            "id": 9088,
            "namespace": "hwstaff_l00283074",
            "repo": "experience_2048",
            "retention_id": 91,
            "rule_type": "{\"template\":\"tag_rule\",\"params\":{\"num\":\"7\"},\"tag_selectors\":[]}",
            "tag": "4"
        }
    ],
    "total": 1
}
```

Status Code

Status Code	Description
201	Request successful.
400	Request error.
401	Authentication failed.
404	The organization does not exist.
500	Internal error.

Error Codes

For details, see **Error Codes**.

4.10 Temporary Login Command

4.10.1 Generating a Temporary Login Command

Function

Generate a temporary login command using the value of **X-Swr-Dockerlogin** in the response header and the value of **host** in the response body.

URI

POST /v2/manage/utils/secret

For details about parameters, see **Table 4-140**.

Table 4-140 Parameter description

Parameter	Mandatory	Type	Description
projectname	No	String	Project name. The default value is the region name.

Request Parameters

Table 4-141 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). The value can be **application/json;charset=utf-8** or **application/json**. The default value is **application/json**.
X-Auth-Token	Yes	String	User token. The token can be obtained by calling the IAM API used to obtain a user token. The value of **X-Subject-Token** in the response header is the user token.

Response Parameters

Status code: 200

Table 4-142 Response header parameters

Parameter	Type	Description
X-Swr-Dockerlogin	String	A **docker login** command, for example, **docker login -u cn-north-1@OW******FPUKBXI -p 6f0779072******863d1ae3ccef921b7f33**

Table 4-143 Response body parameters

Parameter	Type	Description
auths	Map<String,**AuthInfo**>	Authentication information.

Table 4-144 AuthInfo

Parameter	Type	Description
auth	String	Base64-encoded authentication information.

Example Request

POST https://{endpoint}/v2/manage/utils/secret

```
POST https://{endpoint}/v2/manage/utils/secret
```

Example Response

Status code: 200

Creation succeeded.

```
{
  "auths" : {
    "swr.xxx" : {
      "auth" : "Y24tbm9ydGg******hhMTgzMGVmN2RhZjJm"
    }
  }
}
```

Status Codes

Status Code	Description
200	Creation succeeded.
400	Request error.
401	Authentication failed.
500	Internal error.

5 Appendixes

5.1 Status Codes

- Normal

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

- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter a username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server cannot find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server cannot be accepted by the client.

Returned Value	Description
407 Proxy Authentication Required	You must use the proxy server for authentication so that the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of a service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request. The service is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

5.2 Error Codes

If an error occurs in API calling, no result is returned. Identify the causes of errors based on the error codes of each API. If an error occurs in API calling, HTTP status code 4xx or 5xx is returned. The response body contains the specific error code and information.

Format of an Error Response Body

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

```
[
  {
     "errorCode": "SVCSTG.SWR.4001048",
     "errorMessage": "Failed to get Token from Context",
     "detail": ""
  }
]
```

In the preceding information, **errorCode** indicates error code, **errorMessage** indicates error description, and **detail** provides error details.

Error Code Description

Status Code	Error Code	Description
401	SVCSTG.SWR.4010000	Authentication failed. Obtain a new token and try again.

Status Code	Error Code	Description
500	SVCSTG.SWR.5000001	Internal server error: Failed to obtain the application description.
500	SVCSTG.SWR.5000002	Internal server error: Failed to obtain the image information.
500	SVCSTG.SWR.5000003	Internal server error: Failed to obtain the image list.
404	SVCSTG.SWR.4040004	The software package does not exist.
500	SVCSTG.SWR.5000005	Internal server error: Deletion fails.
409	SVCSTG.SWR.4090006	The image already exists.
500	SVCSTG.SWR.5000007	Internal server error: Operation fails.
500	SVCSTG.SWR.5000008	Internal server error: Failed to obtain the list.
404	SVCSTG.SWR.4040009	The image list cannot be found.
404	SVCSTG.SWR.4040010	The image does not exist.
500	SVCSTG.SWR.5000011	Internal server error: Update fails.
406	SVCSTG.SWR.4060012	Failed to delete the image repository because it contains images.
400	SVCSTG.SWR.4000013	Invalid digest.
400	SVCSTG.SWR.4000014	Invalid API parameter. Modify the request body based on the returned message and the SWR API documentation, or contact technical support.
400	SVCSTG.SWR.4000015	Invalid package name.
400	SVCSTG.SWR.4000016	Invalid version number.
500	SVCSTG.SWR.5000017	Internal server error: The application signature function is disabled.
500	SVCSTG.SWR.5000018	Internal server error: Failed to read public keys.

Status Code	Error Code	Description
500	SVCSTG.SWR.5000019	Internal server error: Failed to find local files.
500	SVCSTG.SWR.5000020	Internal server error: Failed to obtain session locks.
500	SVCSTG.SWR.5000021	Internal server error: Failed to synchronize files.
500	SVCSTG.SWR.5000022	Internal server error: Failed to synchronize meta files.
409	SVCSTG.SWR.4090023	The system is busy.
500	SVCSTG.SWR.5000024	Internal server error: Failed to generate the SHA value.
413	SVCSTG.SWR.4130025	The file exceeds the maximum size allowed.
500	SVCSTG.SWR.5000027	Internal server error: Failed to decompress the package.
400	SVCSTG.SWR.4000028	Incorrect image format.
400	SVCSTG.SWR.4000029	Incorrect image format: The image name is inconsistent.
500	SVCSTG.SWR.5000030	Internal server error: Failed to locate the file pointer.
400	SVCSTG.SWR.4000031	Invalid AK/SK.
500	SVCSTG.SWR.5000032	Internal server error: JSON conversion fails.
500	SVCSTG.SWR.5000033	Internal server error: Failed to save the application file.
500	SVCSTG.SWR.5000034	Internal server error: Failed to delete the application.
500	SVCSTG.SWR.5000035	Internal server error: Failed to save the application to the database.
500	SVCSTG.SWR.5000036	Internal server error: Failed to update the application database.
500	SVCSTG.SWR.5000037	Internal server error: Failed to create the signature.
500	SVCSTG.SWR.5000038	Internal server error: Failed to delete the signature.

Status Code	Error Code	Description
400	SVCSTG.SWR.4000039	Invalid session ID.
500	SVCSTG.SWR.5000040	Failed to update status.
500	SVCSTG.SWR.5000041	Internal server error: Failed to read the session.
500	SVCSTG.SWR.5000042	Internal server error: Failed to reclaim the session.
404	SVCSTG.SWR.4040043	The session does not exist.
500	SVCSTG.SWR.5000044	Internal server error: Failed to generate the session.
400	SVCSTG.SWR.4000045	Internal server error: Failed to bind the session.
500	SVCSTG.SWR.5000046	Internal server error: Creation fails.
400	SVCSTG.SWR.4000047	This version is not supported.
404	SVCSTG.SWR.4040048	The image tag does not exist.
500	SVCSTG.SWR.5000049	Internal server error: Failed to delete the image.
500	SVCSTG.SWR.5000050	Internal server error: Failed to generate the digest.
500	SVCSTG.SWR.5000051	Internal server error: Failed to obtain the SHA list.
500	SVCSTG.SWR.5000052	Internal server error: Failed to reduce image references.
406	SVCSTG.SWR.4060053	Deletion fails. Please first delete the software package.
500	SVCSTG.SWR.5000054	Internal server error: Saving fails.
400	SVCSTG.SWR.4000055	No search content.
400	SVCSTG.SWR.4000056	Invalid page size.
500	SVCSTG.SWR.5000057	Internal server error: Failed to obtain the organization.

Status Code	Error Code	Description
404	SVCSTG.SWR.4040058	The organization does not exist.
500	SVCSTG.SWR.5000059	Internal server error: Failed to create the organization.
409	SVCSTG.SWR.4090060	The organization already exists.
500	SVCSTG.SWR.5000061	Failed to obtain the IP address of the software instance.
500	SVCSTG.SWR.5000062	Failed to obtain the local IP address of the software.
500	SVCSTG.SWR.5000063	Failed to obtain the tag list.
400	SVCSTG.SWR.4000064	Invalid image: The manifest file contains empty RepoTags.
400	SVCSTG.SWR.4000065	Invalid image: The manifest file does not have layer information.
400	SVCSTG.SWR.4000066	Invalid image: The manifest file does not have configuration information.
400	SVCSTG.SWR.4000067	Invalid image package: The image package does not have a manifest file.
400	SVCSTG.SWR.4000068	Invalid image: Failed to parse the manifest file.
400	SVCSTG.SWR.4000069	Invalid image: The image format is incorrect or not supported.
507	SVCSTG.SWR.5070070	Your OBS service is disabled or incorrect. Please first check your OBS service.
500	SVCSTG.SWR.5000071	Internal server error: Failed to obtain the user list.
500	SVCSTG.SWR.5000073	Internal server error: Restoration fails.
500	SVCSTG.SWR.5000075	Internal server error: Failed to update the organization.
409	SVCSTG.SWR.4090076	The organization permission already exists.
500	SVCSTG.SWR.5000077	Internal server error: Failed to obtain the organization permission.
404	SVCSTG.SWR.4040078	The organization permission does not exist.

Status Code	Error Code	Description
500	SVCSTG.SWR.5000079	Internal server error: Failed to update the organization permission.
500	SVCSTG.SWR.5000080	Internal server error: Failed to create the organization permission.
500	SVCSTG.SWR.5000081	Internal server error: Failed to delete the organization permission.
500	SVCSTG.SWR.5000082	Internal server error: Failed to parse the JSON file.
404	SVCSTG.SWR.4040083	The requested URL cannot be found.
500	SVCSTG.SWR.5000084	Internal server error: Failed to obtain the service.
500	SVCSTG.SWR.5000085	Internal server error: Failed to create the tag.
500	SVCSTG.SWR.5000086	Internal server error: Failed to update the tag.
500	SVCSTG.SWR.5000087	Internal server error: Failed to obtain the image layer.
500	SVCSTG.SWR.5000088	Internal server error: Failed to delete the image layer from UDS.
409	SVCSTG.SWR.4090089	The permission already exists.
500	SVCSTG.SWR.5000090	Internal server error: Failed to obtain the permission.
404	SVCSTG.SWR.4040091	The permission does not exist.
500	SVCSTG.SWR.5000092	Internal server error: Failed to update the permission.
500	SVCSTG.SWR.5000093	Internal server error: Failed to create the permission.
400	SVCSTG.SWR.4000097	The maximum number of organizations has been exceeded.
400	SVCSTG.SWR.4000098	The maximum number of images has been exceeded.
400	SVCSTG.SWR.4000099	The maximum number of image tags has been exceeded.
500	SVCSTG.SWR.5000112	Internal server error. Failed to obtain the image.

Status Code	Error Code	Description
404	SVCSTG.SWR.4040113	The image does not exist.
500	SVCSTG.SWR.5000114	Internal server error. Failed to obtain the image tag.
404	SVCSTG.SWR.4040115	The image tag does not exist.
400	SVCSTG.SWR.4001000	**Content-Type** must be set to **multipart/form-data**.
413	SVCSTG.SWR.4131001	The request exceeds the maximum size allowed.
500	SVCSTG.SWR.5001002	Internal server error: The external address is disabled.
400	SVCSTG.SWR.4001003	Failed to obtain the form file.
400	SVCSTG.SWR.4001004	**Type** must be set to **app**.
400	SVCSTG.SWR.4001005	Failed to parse the form.
400	SVCSTG.SWR.4001006	Invalid meta file format.
400	SVCSTG.SWR.4001008	Invalid organization or name.
400	SVCSTG.SWR.4001009	**is_public** must be set to **true** or **false**.
400	SVCSTG.SWR.4001010	**Type** must be set to **app** or **image**.
400	SVCSTG.SWR.4001011	**Type** must be set to **app**, **image** or left blank.
413	SVCSTG.SWR.4131012	The description exceeds the maximum length allowed.
400	SVCSTG.SWR.4001013	**ak** or **sk** cannot be left blank.
400	SVCSTG.SWR.4001014	Mandatory parameters must be set.
400	SVCSTG.SWR.4001015	The form file cannot be found.
400	SVCSTG.SWR.4001016	At least **is_public** and **manifests** must be set.

Status Code	Error Code	Description
400	SVCSTG.SWR.4001018	Incorrect request body type.
400	SVCSTG.SWR.4001019	Failed to parse the form file.
500	SVCSTG.SWR.5001020	Internal server error: Failed to read the form file.
400	SVCSTG.SWR.4001021	The version number cannot be left blank.
400	SVCSTG.SWR.4001022	Incorrect file type.
400	SVCSTG.SWR.4001023	Unsupported file type.
400	SVCSTG.SWR.4001024	Failed to query parameters.
400	SVCSTG.SWR.4001025	Invalid parameter.
500	SVCSTG.SWR.5001026	Failed to obtain the manifest file.
400	SVCSTG.SWR.4001027	**Status** must be set to **done** or **error**.
400	SVCSTG.SWR.4001028	Invalid organization name.
400	SVCSTG.SWR.4001029	Invalid image name.
400	SVCSTG.SWR.4001030	Invalid package.
403	SVCSTG.SWR.4031032	The number of requests exceeds the maximum number allowed.
403	SVCSTG.SWR.4031033	Unavailable request.
400	SVCSTG.SWR.4001035	Invalid filtering criteria.
400	SVCSTG.SWR.4001036	Parameters are lost.
400	SVCSTG.SWR.4001037	The registration center type is not supported.
500	SVCSTG.SWR.5001038	The registration center is unavailable.

Status Code	Error Code	Description
500	SVCSTG.SWR.5001039	Search fails.
400	SVCSTG.SWR.4001041	Invalid **domain**.
403	SVCSTG.SWR.4031042	There are too many requests.
403	SVCSTG.SWR.4031043	Invalid JWT token request.
401	SVCSTG.SWR.4011044	The image to be uploaded has been created by another user. You do not have the permission to upload the image.
400	SVCSTG.SWR.4001045	The **SWRServer** parameter is missing.
500	SVCSTG.SWR.5001046	Internal server error: Failed to check the organization.
500	SVCSTG.SWR.5001047	Internal server error: Failed to save the organization.
400	SVCSTG.SWR.4001048	Failed to obtain the token.
500	SVCSTG.SWR.5001049	Internal server error: Failed to delete the organization.
500	SVCSTG.SWR.5001050	Internal server error: Failed to obtain the image layer.
404	SVCSTG.SWR.4041051	The image layer does not exist.
500	SVCSTG.SWR.5001052	Internal server error: Invalid image layer.
500	SVCSTG.SWR.5001053	Internal server error: Invalid upload of an image layer.
500	SVCSTG.SWR.5001054	Internal server error: Failed to create the image layer path.
500	SVCSTG.SWR.5001055	Internal server error: Failed to save the image layer.
404	SVCSTG.SWR.4041056	The image tag does not exist.
500	SVCSTG.SWR.5001056	Internal server error: Failed to obtain the tag list.

Status Code	Error Code	Description
404	SVCSTG.SWR.4041057	The tag list does not exist.
500	SVCSTG.SWR.5001058	Internal server error: Failed to save the image.
500	SVCSTG.SWR.5001059	Internal server error: Failed to obtain the image.
404	SVCSTG.SWR.4041060	The manifest file does not exist.
404	SVCSTG.SWR.4041061	The organization does not exist.
500	SVCSTG.SWR.5001062	Internal server error: Failed to update the organization.
500	SVCSTG.SWR.5001063	Internal server error: Failed to delete the image layer.
401	SVCSTG.SWR.4011064	Insufficient permissions.
400	SVCSTG.SWR.4001065	Invalid organization permissions.
400	SVCSTG.SWR.4001066	Invalid permissions.
400	SVCSTG.SWR.4001067	Invalid username.
500	SVCSTG.SWR.5001076	Failed to obtain the service token.
401	SVCSTG.S2I.4019000	Authentication error: No user token or user AK/SK information found.
403	SVCSTG.SWR.4039001	You cannot apply for or operate the resources that do not belong to you.
403	SVCSTG.SWR.4039002	You do not have the permission to perform this operation.
400	SVCSTG.SWR.4009010	Invalid organization.
400	SVCSTG.SWR.4009011	Invalid image name.
400	SVCSTG.SWR.4009012	Invalid code source type.
400	SVCSTG.SWR.4009013	Invalid ID.

Status Code	Error Code	Description
400	SVCSTG.SWR.4009014	Invalid filtering criteria.
400	SVCSTG.SWR.4009015	Failed to parse the build task.
400	SVCSTG.SWR.4009016	Invalid file path.
400	SVCSTG.SWR.4009017	Invalid source code owner.
400	SVCSTG.SWR.4009018	Invalid source code repository.
400	SVCSTG.SWR.4009019	Invalid source code repository ID.
400	SVCSTG.SWR.4009020	Invalid source code branch.
400	SVCSTG.SWR.4009021	Invalid image label.
400	SVCSTG.SWR.4009022	Invalid source code username.
400	SVCSTG.SWR.4009023	Invalid commit ID.
400	SVCSTG.SWR.4006030	Failed to execute the build task.
400	SVCSTG.SWR.4006031	The build record already exists.
404	SVCSTG.SWR.4046032	The build record does not exist.
500	SVCSTG.SWR.5006033	Failed to obtain the build record from the database.
403	SVCSTG.SWR.4037017	You do not have the permission to edit or manage any organization. Please first create an organization or obtain the edit/management permission of the organization.
403	SVCSTG.SWR.4037018	You do not have the permission to edit or manage any image in the image repository. Please first create an image or obtain an editable/manageable image.

Status Code	Error Code	Description
500	SVCSTG.SWR.5007019	Failed to create the image. The maximum number of images have been reached.
403	SVCSTG.SWR.4037020	You do not have the permission to operate the image repository resource. Please improve your organization permissions.

5.3 Obtaining a Project ID

Scenarios

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

- **Obtain the Project ID by Calling an API**
- **Obtain the Project ID from the Console**

Obtain the Project ID by Calling an API

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

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

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

```
{
    "projects": [
        {
            "domain_id": "65ewtrgaggshhk1223245sghjlse684b",
            "is_domain": false,
            "parent_id": "65ewtrgaggshhk1223245sghjlse684b",
            "name": "project_name",
            "description": "",
            "links": {
                "next": null,
                "previous": null,
                "self": "https://www.example.com/v3/projects/a4adasfjljaaaakla12334jklga9sasfg"
            },
            "id": "a4adasfjljaaaakla12334jklga9sasfg",
            "enabled": true
        }
    ],
    "links": {
        "next": null,
        "previous": null,
        "self": "https://www.example.com/v3/projects"
    }
}
```

Obtain a Project ID from the Console

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

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

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

6 Permissions and Supported Actions

6.1 Introduction

You can use Identity and Access Management (IAM) for fine-grained permissions management of your SWR resources. If your account does not need individual IAM users, you can skip this section.

With IAM, you can control access to specific cloud resources. IAM supports role/policy-based authorization and identity policy-based authorization.

The following table describes the differences between the two authorization models.

Table 6-1 Differences between role/policy-based and identity policy-based authorization

Authorization Model	Core Relationship	Permissions	Authorization Method	Description
Role/Policy	User-permission-authorization scope	● System-defined roles ● System-defined policies ● Custom policies	Assigning roles or policies to principals	To authorize a user, you need to add it to a user group first and then specify the scope of authorization. It is hard to provide fine-grained permissions control using authorization by user groups and a limited number of condition keys. This method is suitable for small- and medium-sized enterprises.

Authorization Model	Core Relationship	Permissions	Authorization Method	Description
Identity policy	User-policy	● System-defined identity policies ● Custom identity policies	● Granting identity policies to principals ● Attaching identity policies to principals	You can authorize a user by attaching an identity policy to it. User-specific authorization and a variety of key conditions allow for more fine-grained permissions control. However, this model can be hard to set up. It requires a certain amount of expertise and is suitable for medium- and large-sized enterprises.

Policies/identity policies and actions in the two authorization models are not interoperable. You are advised to use the identity policy-based authorization model.

If you use IAM users in your account to call an API, the IAM users must be granted the required permissions. The required permissions are determined by the actions supported by the API. Only users with the permissions allowing for those actions can call the API successfully.

6.2 Actions Supported by Policy-based Authorization

This section describes the actions supported by SWR in policy-based authorization.

Supported Actions

SWR provides system-defined policies that can be directly used in IAM. You can also create custom policies to supplement system-defined policies for more refined access control. Operations supported by policies are specific to APIs. The following are common concepts related to policies:

- Permissions: statements in a policy that allow or deny certain operations
- APIs: REST APIs that can be called by a user who has been granted specific permissions
- Actions: specific operations that are allowed or denied in a custom policy
- Dependencies: actions which a specific action depends on. When allowing an action for a user, you also need to allow any existing action dependencies for that user.
- Lifecycle management: a process that manages repositories from conception to end of life, including creating an organization, querying the organization list, and creating repositories in an organization.

6.3 Actions Supported by Identity Policy-based Authorization

IAM provides system-defined identity policies to define common actions supported by cloud services. You can also create custom identity policies using the actions supported by cloud services for more refined access control.

In addition to IAM, the Organizations service also provides Service Control Policies (SCPs) to set access control policies.

SCPs do not actually grant any permissions to a principal. They only set the permissions boundary for the principal. When SCPs are attached to a member account or an organizational unit (OU), they do not directly grant permissions to that member account or OU. Instead, the SCPs just determine what permissions are available for that member account or the member accounts under that OU. The granted permissions can be applied only if they are allowed by the SCPs.

There are some differences between IAM and Organizations when they are used for access control.

This section describes the elements used by IAM custom identity policies and Organizations SCPs. The elements include actions, resources, and conditions.

Actions

Actions are specific operations that are allowed or denied in an SCP.

- The **Access Level** column describes how the action is classified (**List**, **Read**, or **Write**). This classification helps you understand the level of access that an action grants when you use it in an identity policy.
- The **Resource Type** column indicates whether the action supports resource-level permissions.
  - You can use a wildcard (*) to indicate all resource types. If this column is empty (-), the action does not support resource-level permissions and you must specify all resources ("*") in your identity policy statements.
  - If this column includes a resource type, you must specify a URN for the Resource element in your identity policy statements.
  - Required resources are marked with asterisks (*) in the table. If you specify a resource in a statement using this action, then it must be of this type.

  For details about the resource types defined by SWR, see **Resources**.
- The **Condition Key** column contains keys that you can specify in the Condition element of an identity policy statement.
  - If the **Resource Type** column has values for an action, the condition key takes effect only for the listed resource types.
  - If the **Resource Type** column is empty (-) for an action, the condition key takes effect for all resources that action supports.
  - If the **Condition Key** column is empty (-) for an action, the action does not support any condition keys.

For details about the condition keys defined by SWR, see **Conditions**.

- The **Alias** column lists the policy actions that are configured in identity policies. With these actions, you can use APIs for policy-based authorization.

The following table lists the actions that you can define in identity policy statements for SWR.

Table 6-2 Actions supported by SWR

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
swr:namespace:createNamespace	Grants permission to create organizations.	write	namespace *	-	-
swr:namespace:deleteNamespace	Grants permission to delete organizations.	write	namespace *	-	-
swr:namespace:listNamespaces	Grants permission to list organizations.	list	namespace *	-	-
swr:namespace:getNamespace	Grants permission to query details about an organization.	read	namespace *	-	-
swr:repo:createRepo	Grants permission to create repositories.	write	repo *	-	-
swr:repo:deleteRepo	Grants permission to delete repositories.	write	repo *	-	-
swr:repo:listRepos	Grants permission to list repositories.	list	repo *	-	-

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
swr:repo:listSharedRepos	Grants permission to list shared images.	list	repo *	-	-
swr:repo:getRepo	Grants permission to query brief information about a repository.	read	repo *	-	-
swr:repo:updateRepo	Grants permission to update brief information about a repository.	write	repo *	-	-
swr:repo:deleteRepoTag	Grants permission to delete images with specified tags.	write	repo *	-	-
swr:repo:createRepoTag	Grants permission to add tags for images.	write	repo *	-	-
swr:repo:listRepoTags	Grants permission to list image tags.	list	repo *	-	-
swr:repo:createRepoDomain	Grants permission to create accounts for image sharing.	permission_management	repo *	-	-
			-	● swr:TargetAccountId ● swr:TargetOrgPath ● swr:TargetOrgId	

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
swr:repo:deleteRepoDomain	Grants permission to delete accounts for image sharing.	permission_management	repo *	-	-
swr:repo:listRepoDomains	Grants permission to list accounts for image sharing.	list	repo *	-	-
swr:repo:getRepoDomain	Grants permission to check whether an account exists for image sharing.	read	repo *	-	-
swr:repo:updateRepoDomain	Grants permission to update an account for image sharing.	permission_management	repo *	-	-
swr:repo:createRepoShare	Grants permission to create image sharing policies.	permission_management	repo *	-	-
			-	● swr:TargetAccountId ● swr:TargetOrgPath ● swr:TargetOrgId	
swr:repo:deleteRepoShare	Grants permission to delete image sharing policies.	permission_management	repo *	-	-

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
swr:repo:listRepoShares	Grants permission to list image sharing policies.	list	repo *	-	-
swr:repo:getRepoShare	Grants permission to query details about an image sharing policy.	read	repo *	-	-
swr:repo:updateRepoShare	Grants permission to update an image sharing policy.	permission_management	repo *	-	-
swr:repo:createAutoSyncRepoJob	Grants permission to create automatic image synchronization tasks.	write	repo *	-	-
swr:repo:createManualSyncRepoJob	Grants permission to manually synchronize images.	write	repo *	-	-
swr:repo:deleteAutoSyncRepoJob	Grants permission to delete automatic image synchronization tasks.	write	repo *	-	-
swr:repo:listAutoSyncRepoJobs	Grants permission to list automatic image synchronization tasks.	list	repo *	-	-

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
swr:repo:getSyncRepoJobInfo	Grants permission to query details about an image synchronization task.	read	repo *	-	-
swr:repo:createTrigger	Grants permission to create triggers for image synchronization.	write	repo *	-	-
swr:repo:deleteTrigger	Grants permission to delete triggers for image synchronization.	write	repo *	-	-
swr:repo:listTriggers	Grants permission to list image synchronization triggers.	list	repo *	-	-
swr:repo:getTrigger	Grants permission to query details about an image synchronization trigger.	read	repo *	-	-
swr:repo:updateTrigger	Grants permission to update an image synchronization trigger.	write	repo *	-	-

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
swr:repo:createRetention	Grants permission to create image retention policies.	write	repo *	-	-
swr:repo:deleteRetention	Grants permission to delete image retention policies.	write	repo *	-	-
swr:repo:listRetentionHistories	Grants permission to list image retention records.	list	repo *	-	-
swr:repo:listRetentions	Grants permission to list image retention policies.	list	repo *	-	-
swr:repo:getRetention	Grants permission to query details about an image retention policy record.	read	repo *	-	-
swr:repo:updateRetention	Grants permission to modify an image retention policy.	write	repo *	-	-
swr::createLoginSecret	Grants permission to generate a temporary login command.	write	-	-	-

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
swr::listQuotas	Grants permission to list quotas.	list	-	-	-
swr::getDomainOverview	Grants permission to query brief tenant information.	read	-	-	-
swr::getDomainResourceReports	Grants permission to query resource statistics of the tenant.	read	-	-	-
swr:namespace:multipartUpload	Grants permission to upload an image in multipart mode.	write	namespace *	-	-
swr:namespace:createNamespaceAccess	Grants permission to create organization permissions.	permission_management	namespace *	-	-
swr:namespace:deleteNamespaceAccess	Grants permission to delete organization permissions.	permission_management	namespace *	-	-
swr:namespace:getNamespaceAccess	Grants permission to query details about an organization permission.	read	namespace *	-	-
swr:namespace:updateNamespaceAccess	Grants permission to update an organization permission.	permission_management	namespace *	-	-

Action	Description	Access Level	Resource Type (*: required)	Condition Key	Alias
swr:repo:createRepoAccess	Grants permission to create image permissions.	permission_management	repo *	-	-
swr:repo:deleteRepoAccess	Grants permission to delete image permissions.	permission_management	repo *	-	-
swr:repo:getRepoAccess	Grants permission to query details about an image permission.	read	repo *	-	-
swr:repo:updateRepoAccess	Grants permission to update an image permission.	permission_management	repo *	-	-
swr:repo:upload	Grants permission to upload an image.	write	repo *	-	-
swr:repo:download	Grants permission to download an image.	read	repo *	-	-

Each API of SWR usually supports one or more actions. **Table 6-3** lists the supported actions and dependencies.

Table 6-3 Actions and dependencies supported by SWR APIs

API	Action	Dependencies
POST /v2/manage/namespaces	swr:namespace:createNamespace	-

API	Action	Dependencies
DELETE /v2/manage/namespaces/{namespace}	swr:namespace:deleteNamespace	-
GET /v2/manage/namespaces	swr:namespace:listNamespaces	-
GET /v2/manage/namespaces/{namespace}	swr:namespace:getNamespace	-
POST /v2/manage/namespaces/{namespace}/repos	swr:repo:createRepo	-
DELETE /v2/manage/namespaces/{namespace}/repos/{repository}	swr:repo:deleteRepo	-
GET /v2/manage/repos	swr:repo:listRepos	-
GET /v2/manage/shared-repositories	swr:repo:listSharedRepos	-
GET /v2/manage/namespaces/{namespace}/repos/{repository}	swr:repo:getRepo	-
PATCH /v2/manage/namespaces/{namespace}/repos/{repository}	swr:repo:updateRepo	-
DELETE /v2/manage/namespaces/{namespace}/repos/{repository}/tags/{tag}	swr:repo:deleteRepoTag	-
GET /v2/manage/namespaces/{namespace}/repos/{repository}/tags	swr:repo:listRepoTags	-

API	Action	Dependencies
POST /v2/manage/namespaces/{namespace}/repositories/{repository}/access-domains	swr:repo:createRepoDomain	-
DELETE /v2/manage/namespaces/{namespace}/repositories/{repository}/access-domains/{access_domain}	swr:repo:deleteRepoDomain	-
GET /v2/manage/namespaces/{namespace}/repositories/{repository}/access-domains	swr:repo:listRepoDomains	-
GET /v2/manage/namespaces/{namespace}/repositories/{repository}/access-domains/{access_domain}	swr:repo:getRepoDomain	-
PATCH /v2/manage/namespaces/{namespace}/repositories/{repository}/access-domains/{access_domain}	swr:repo:updateRepoDomain	-
POST /v2/manage/namespaces/{namespace}/repos/{repository}/shares	swr:repo:createRepoShare	-
DELETE /v2/manage/namespaces/{namespace}/repos/{repository}/shares/{share_id}	swr:repo:deleteRepoShare	-

API	Action	Dependencies
GET /v2/manage/namespaces/{namespace}/repos/{repository}/shares	swr:repo:listRepoShares	-
PATCH /v2/manage/namespaces/{namespace}/repos/{repository}/shares/{share_id}	swr:repo:updateRepoShare	-
POST /v2/manage/namespaces/{namespace}/access	swr:namespace:createNamespaceAccess	-
DELETE /v2/manage/namespaces/{namespace}/access	swr:namespace:deleteNamespaceAccess	-
GET /v2/manage/namespaces/{namespace}/access	swr:namespace:getNamespaceAccess	-
PATCH /v2/manage/namespaces/{namespace}/access	swr:namespace:updateNamespaceAccess	-

Resources

A resource type indicates the resources that an identity policy applies to. If you specify a resource type for any action in **Table 6-4**, the resource URN must be specified in the identity policy statements using that action, and the identity policy applies only to resources of this type. If no resource type is specified, the Resource element is marked with an asterisk (*) and the identity policy applies to all resources. You can also set condition keys in an identity policy to define resource types.

The following table lists the resource types that you can specify in identity policy statements for SWR.

Table 6-4 Resource types supported by SWR

Resource Type	URN
repo	swr:<region>:<account-id>:repo:<namespace-name>/<repo-name>
repository	swr:<region>:<account-id>:repository:<instance-name>/<repository-path>

Resource Type	URN
instance	swr:<region>:<account-id>:instance:<instance-name>
namespace	swr:<region>:<account-id>:namespace:<namespace-name>

Conditions

A Condition element lets you specify conditions for when an identity policy is in effect. It contains conditions keys and operators.

- The condition key that you specify can be a global or service-specific condition key.
  - Global condition keys (with the **g:** prefix) apply to all actions. Cloud services do not need to provide user identity information. Instead, IAM automatically obtains such information and authenticates users.
  - Service-specific condition keys (with the abbreviation of a service name plus a colon as the prefix, for example, **swr:**) only apply to operations of the SWR service.
  - The number of values associated with a condition key in the request context of an API call makes the condition key single-valued or multivalued. Single-valued condition keys have at most one value in the request context of an API call. Multivalued condition keys can have multiple values in the request context of an API call. For example, a request can originate from at most one VPC endpoint, so g:SourceVpce is a single-valued condition key. You can tag resources and include multiple tag key-value pairs in a request, so g:TagKeys is a multivalued condition key.
- A condition operator, condition key, and a condition value together constitute a complete condition statement. An identity policy can be applied only when its request conditions are met.

The following table lists the condition keys that you can define in identity policies for SWR. You can include these condition keys to specify conditions for when your identity policy is in effect.

Table 6-5 Service-specific condition keys supported by SWR

Condition Key	Value Type	Single-valued/ Multivalued	Description
swr:TargetOrgPath	string	Single-valued	Controls permissions of target sharing accounts based on their organization paths.

Condition Key	Value Type	Single-valued/ Multivalued	Description
swr:TargetOrgId	string	Single-valued	Controls permissions of target sharing accounts based on their organization IDs.
swr:TargetAccountId	string	Single-valued	Controls permissions of target sharing accounts based on their IDs.
swr:VpcId	string	Single-valued	Controls permissions based on VPC IDs.
swr:SubnetId	string	Single-valued	Controls permissions based on subnet IDs.
swr:EnablePublicNameSpace	boolean	Single-valued	Controls whether public organizations can be created in SWR Enterprise Edition.
swr:EnableObsEncrypt	boolean	Single-valued	Controls whether encrypted buckets must be used in SWR Enterprise Edition.
swr:AllowPublicAccess	boolean	Single-valued	Controls whether images can be public.
swr:TargetRegion	string	Single-valued	Controls permissions based on destination regions.