

Alibaba Cloud

Apsara Stack Enterprise

Container Registry Developer Guide

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Document conventions

Style	Description	Example
 Danger	A danger notice indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	 Danger: Resetting will result in the loss of user configuration data.
 Warning	A warning notice indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	 Warning: Restarting will cause business interruption. About 10 minutes are required to restart an instance.
 Notice	A caution notice indicates warning information, supplementary instructions, and other content that the user must understand.	 Notice: If the weight is set to 0, the server no longer receives new requests.
 Note	A note indicates supplemental instructions, best practices, tips, and other content.	 Note: You can use Ctrl + A to select all files.
>	Closing angle brackets are used to indicate a multi-level menu cascade.	Click Settings > Network > Set network type .
Bold	Bold formatting is used for buttons, menus, page names, and other UI elements.	Click OK .
<code>Courier font</code>	Courier font is used for commands	Run the <code>cd /d C:/window</code> command to enter the Windows system folder.
<i>Italic</i>	Italic formatting is used for parameters and variables.	<code>bae log list --instanceid</code> <i>Instance_ID</i>
[] or [a b]	This format is used for an optional value, where only one item can be selected.	<code>ipconfig [-all -t]</code>
{ } or {a b}	This format is used for a required value, where only one item can be selected.	<code>switch {active stand}</code>

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1.SDK reference

1.1. Getting started

1.1.1. Usage notes on development documentation

This topic describes how to view the desired product development documentation when you use Apsara Stack API (ASAPI).

Prerequisites

The Apsara Stack version is obtained from an O&M personnel or operations administrator.

Procedure

You can go to the Apsara Stack documentation center and view the desired product documentation.

1. Go to the [Apsara Stack Documentation Center](#) page by using a browser.
2. Click the **Enterprise**, **Agility**, or **All-in-one** tab based on the Apsara Stack version that you use.
3. Select an Apsara Stack version from the drop-down list.
4. In the left-side navigation pane, select the name of the product that you want to view.
5. In the upper-right corner of the product documentation section, click **View Details** or **Download PDF**.

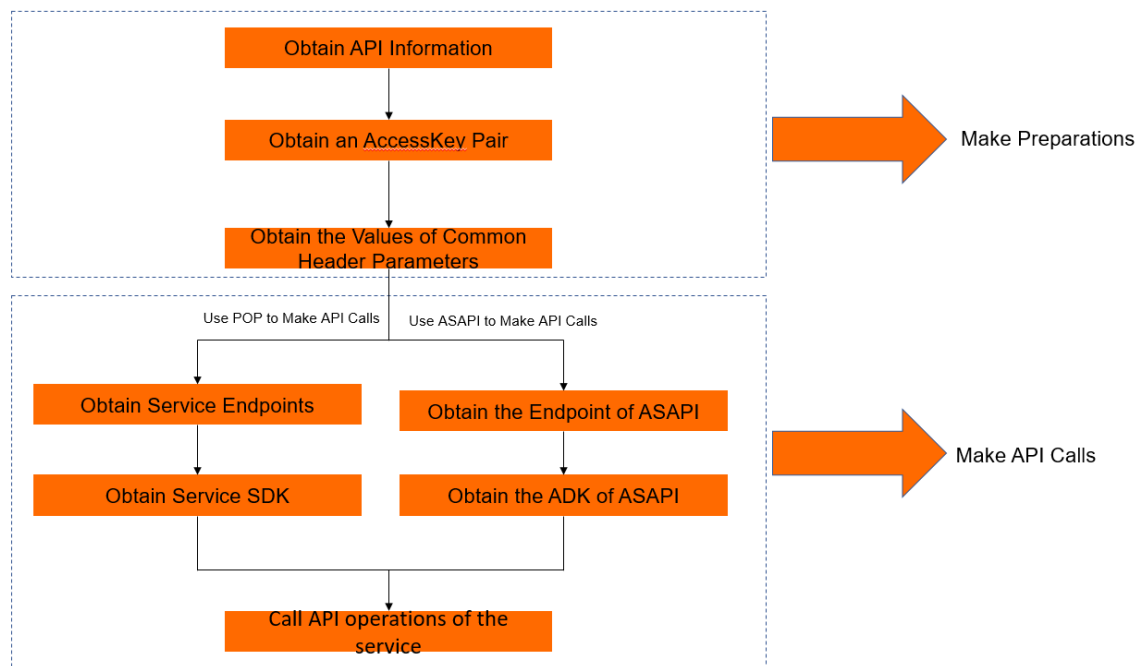
1.1.2. Process of API calls

You can use points of presence (POPs) or Apsara Stack API (ASAPI) to call Apsara Stack API operations. From Apsara Stack Enterprise V3.16.0, POPs are used by default to ensure that user experience is consistent with that in Alibaba Cloud public cloud. This topic describes how to use a POP to call Apsara Stack API operations.

Note

You can continue to use ASAPI to call Apsara Stack API operations in Apsara Stack that is earlier than V3.16.0. For more information, see [Process of API calls by using ASAPI](#), [Obtain an endpoint of ASAPI](#), and [Obtain an SDK for ASAPI](#).

Flowchart



Procedure

1. Obtain an AccessKey pair.

Obtain the AccessKey pair that is required for the API operation call. For more information, see [Obtain an AccessKey pair](#) or [Obtain an AccessKey pair signed by STS](#).

Note

We recommend that you use the AccessKey pair of a personal account or an AccessKey pair assigned by Security Token Service (STS) to call API operations of the Apsara Uni-manager Management Console and Alibaba Cloud services.

2. Obtain the region ID.

Obtain the region ID that is required for the API operation call. For more information, see [Obtain the values of common headers](#).

3. Obtain the organization ID and resource set ID.

You can call the `GetOrganizationList` operation to obtain the organization ID. For more information, see *GetOrganizationList* in *Apsara Uni-manager Management Console Developer Guide*.

You can call the `ListResourceGroup` operation to obtain the resource set ID. For more information, see *ListResourceGroup* in *Apsara Uni-manager Management Console Developer Guide*.

 Note

When you call API operations, use the `<x-acs-organizationid>` and `<x-acs-resourcegroupid>` parameters in headers to specify the organization and resource set to which the resource belongs. This way, you can query instance resources by organization and resource set.

- If you do not specify the `<x-acs-organizationid>` parameter, the organization to which the current user belongs is used by default.
- If you do not specify the `<x-acs-resourcegroupid>` parameter, this parameter is left empty by default. If you specify a resource set ID, you must also specify an organization ID.

4. Obtain the API reference of a service.

You need to learn about the features and usage of the API operations in the development guide of the cloud service. For information about how to obtain and use the development guide, see [Instructions](#).

5. Obtain the endpoint of the service.

6. Obtain the service SDK and use the SDK to call an operation of the service.

1.2. Preparations

1.2.1. Log on to the API Tool console

You can log on to the API Tool console from the Apsara Uni-manager Management Console.

Prerequisites

- Before you log on to the Apsara Uni-manager Management Console, the endpoint of the console is obtained from the deployment staff.
- We recommend that you use Google Chrome.

Procedure

1. Enter the URL of the Apsara Uni-manager Management Console in the address bar and press the Enter key.
2. Enter your username and password.

Obtain the username and password that you use to log on to the Apsara Uni-manager Management Console from the operations administrator.

 **Note** The first time that you log on to the Apsara Uni-manager Management Console, you must change the password of your account. For security purposes, your password must meet the minimum complexity requirements. The password must be 10 to 32 characters in length and must contain at least two of the following character types:

- Uppercase or lowercase letters
- Digits
- Special characters, including exclamation points (!), at signs (@), number signs (#), dollar signs (\$), and percent signs (%)

3. Click **Log On**.

4. In the top navigation bar, choose **Products > Others > API Tool**.

1.2.2. View the information about an operation

This topic describes how to view information about API operations. Before you use SDKs, you need to obtain service names, API operation names, and API versions.

Context

The API operations on the API Directory page are only for reference. For information about how to call API operations, see developer guides of the corresponding cloud services. If the information on the API Directory page is inconsistent with that in the developer guide of the corresponding cloud service, the information in the developer guide prevails.

Procedure

1. Enter the URL of the Apsara Uni-manager Management Console in the address bar and press the Enter key.
2. Enter your username and password.

Obtain the username and password that you use to log on to the Apsara Uni-manager Management Console from the operations administrator.

 **Note** The first time that you log on to the Apsara Uni-manager Management Console, you must change the password of your account. For security purposes, your password must meet the minimum complexity requirements. The password must be 10 to 32 characters in length and must contain at least two of the following character types:

- Uppercase or lowercase letters
- Digits
- Special characters, including exclamation points (!), at signs (@), number signs (#), dollar signs (\$), and percent signs (%)

3. Click **Log On**.

4. In the top navigation bar, choose **Products > Others > API Tool**.

5. In the left-side navigation pane, click **API Directory**.

6. On the **API Directory** page, select **cr-ee** from the drop-down list, enter a keyword of an API operation name in the search box, and then click the Search button.

API Directory

The ASAPI endpoint used to call an Apsara Stack API operation is <https://public.asapi.cn-wl-emv115-d01inter.emv115.shuguang.com/asapi/v3>
For more information about how to call an Apsara Stack API operation, visit required Apsara Stack service in the Apsara Stack Documentation Center over the Internet <https://help.aliyun.com/apsara/index.html>

cr-ee

Operation Name

Reset

Search

Product Name	Operation Name	API Version	Actions
cr-ee	UpdateRepository	2018-12-01	Define Operation Online Debug
cr-ee	CreateRepoSyncTaskByRule	2018-12-01	Define Operation Online Debug
cr-ee	ResetLoginPassword	2018-12-01	Define Operation Online Debug
cr-ee	ListRepository	2018-12-01	Define Operation Online Debug

7. View and record the service name, API operation name, and API version.

1.2.3. Obtain an AccessKey pair

AccessKey pairs are classified into AccessKey pairs assigned by Resource Access Management (RAM) and AccessKey pairs assigned by Security Token Service (STS). You can use either type of AccessKey pair for authentication when you call operations. This topic describes how to obtain an AccessKey pair that is assigned by RAM.

Context

An AccessKey pair is used to verify the identity of request senders. An AccessKey pair consists of an AccessKey ID and an AccessKey secret that are used to implement symmetric encryption. The AccessKey ID is used to identify a user. The AccessKey secret is used to encrypt the signature string.

You can use RAM or STS to assign an AccessKey pair for authentication.

- Use RAM to assign an AccessKey ID and an AccessKey secret to a third party.
- Use STS to assign an AccessKey ID, an AccessKey secret, and a security token to a third party. For more information, see [Obtain an AccessKey pair assigned by STS](#).

The Apsara Uni-manager Management Console provides AccessKey pairs for personal accounts or organizations. Only the administrators of level-1 organizations and operations administrators can obtain the AccessKey pairs of organizations. We recommend that you use the AccessKey pairs of personal accounts to call the operations provided by the Apsara Uni-manager Management Console and cloud services. If you use the AccessKey pair of a personal account, you must add the following parameters in request headers for access control. If you do not add the parameters, an error may occur. The error indicates that permissions are insufficient.



Warning The AccessKey pair of a personal account is managed by the permission system of the Apsara Uni-manager Management Console. The AccessKey pair of an organization has more permissions than the AccessKey pair of a personal account. If you want to obtain the AccessKey pair of an organization, make sure that you are authorized by an administrator. This helps ensure security.

Parameter	Description
x-acsc-regionid	The ID of the region. Example: cn-hangzhou-*

Parameter	Description
x-acs-organizationid	The ID of the organization in the Apsara Uni-manager Management Console. For more information about how to obtain organization IDs, see the <i>GetOrganizationList</i> section in <i>Apsara Uni-manager Management Console Developer Guide</i> .
x-acs-resourcegroupid	The ID of the resource set in the Apsara Uni-manager Management Console. For more information about how to obtain resource set IDs, see the <i>ListResourceGroup</i> section in <i>Apsara Uni-manager Management Console Developer Guide</i> .
x-acs-instanceid	The ID of the instance on which you want to perform operations. For example, you can obtain the ID of an Elastic Compute Service (ECS) instance from the ECS instance list.

Obtain the AccessKey pair of a personal account

To obtain the AccessKey pair of a personal account, perform the following operations:

1. Log on to the Apsara Uni-manager Management Console.
2. In the upper-right corner of the homepage, move the pointer over the profile picture and click **User Information**.
3. In the **AccessKey Pair** section, view the AccessKey pair of your account.

AccessKey Create AccessKey Pair					
The Accesskey ID and AccessKey Secret are the keys used to access the cloud service resources. They have full permissions on the account. Please keep them properly.					
AccessKey ID	AccessKey Secret	Status	Created At	Actions	
W1YRFvKH*****	*****	Enable	Sep 18, 2021, 11:05:57	Disable	Delete
IsJsAUyX*****	*****	Enable	Sep 10, 2021, 12:28:35	Disable	Delete

Note An AccessKey pair consists of an AccessKey ID and an AccessKey secret. These credentials provide full permissions on cloud resources within your account. You must keep the AccessKey pair confidential.

Obtain the AccessKey pair of an organization

To obtain the AccessKey pair of an organization, perform the following operations:

1. Log on to the Apsara Uni-manager Management Console as an administrator.
2. In the top navigation bar, click **Enterprise**.
3. In the left-side navigation pane, choose **Resources > Organizations**.
4. In the organization list, click the name of the level-1 organization whose AccessKey pair you want to obtain.
5. Click **Management Accesskey**.
6. In the dialog box that appears, view the AccessKey pair of the organization.

1.2.4. Obtain an AccessKey pair assigned by STS

This topic describes how to use Security Token Service (STS) to make API calls.

Background information

Alibaba Cloud STS allows you to manage temporary credentials to your Alibaba Cloud resources. You can use STS to make API calls.

An AccessKey pair assigned by STS consists of an AccessKey ID, an AccessKey secret, and a security token. When you use STS to make API calls, you must use an AccessKey pair assigned by STS. For more information about STS, see [What is STS?](#)

Procedure

1. Obtain your `RAM role`.
 - i. Log on to the Apsara Uni-manager Management Console.
 - ii. Move the pointer over the profile picture in the upper-right corner of the page and click **Personal Information**.
 - iii. Click **View Current Role Policy**.

In the **View Policies of Current Role** dialog box, view your `RAM role`.

2. Obtain the AccessKey pair assigned by STS.

Note

You must use the actual values to replace the variables in the following sample code. The angle brackets <> are not retained in the final code.

The following list describes the variables:

- <yourRegionID>: Replace it with the actual region ID.
- <yourAccessKeyID>: Replace it with your AccessKey ID.
- <yourAccessKeySecret>: Replace it with your AccessKey secret.
- <yourRoleSessionName>: Replace it with your current session name.
- <yourRoleArn>: Replace it with the Alibaba Cloud Resource Name (ARN) of your RAM role.
- <sts.aliyuns.com>: Replace it with your actual STS endpoint.

```

public static void main(String[] args) {
    // Create a DefaultAcsClient instance and initialize it.
    Replace <yourRegionID>, <yourAccessKeyID>, and <yourAccessKeySecret> with the actual region ID, your AccessKey ID, and your AccessKey secret.
    DefaultProfile profile = DefaultProfile.getProfile("<yourRegionID>", "<yourAccessKeyID>", "<yourAccessKeySecret>");
    HttpClientConfig clientConfig = HttpClientConfig.getDefault();
    clientConfig.setIgnoreSSLCerts(true);
    clientConfig.setProtocolType(ProtocolType.HTTPS);
    profile.setHttpClientConfig(clientConfig);
    IAcsClient client = new DefaultAcsClient(profile);
    String assumeRole = callAssumeRole(client);
    if (StringUtils.isEmpty(assumeRole)) return;
    JSONObject assumeRoleJson = JSONObject.parseObject(assumeRole);
    JSONObject credentials = assumeRoleJson.getJSONObject("Credentials");
    // Obtain the AccessKey pair assigned by STS.
    String stsAK = credentials.getString("AccessKeyId");
    String stsSK = credentials.getString("AccessKeySecret");
    String stsToken = credentials.getString("SecurityToken");
}

private static String callAssumeRole(IAcsClient client) {
    CommonRequest request = new CommonRequest();
    // Replace "sts.aliyuns.com" with the endpoint of STS. The format of an STS endpoint is sts-vpc.${global:region}.${global:internet-domain}.
    request.setSysDomain("sts.aliyuns.com");
    request.setSysProduct("Sts");
    request.setSysAction("AssumeRole");
    request.setSysVersion("2015-04-01");
    request.setSysMethod(MethodType.POST);
    request.setHttpContentType(FormatType.FORM);
    // The business parameter that is used to specify an alias for the current session.
    Replace "<yourRoleSessionName>" with the actual session name.
    request.putQueryParameter("RoleSessionName", "<yourRoleSessionName>");
    // The ARN of your RAM role. Replace "<yourRoleArn>" with the ARN of your RAM role that is obtained in the previous step.
    request.putQueryParameter("RoleArn", "<yourRoleArn>");
    try {
        CommonResponse response = client.getCommonResponse(request);
        return response.getData();
    } catch (ServerException e) {
        System.out.println(e.getErrCode());
        System.out.println(e.getErrMsg());
    } catch (ClientException e) {
        System.out.println(e.getErrCode());
        System.out.println(e.getErrMsg());
    }
    return null;
}

```

3. Use the AccessKey pair assigned by STS to call API operations of cloud services. In the following code, the `CreateNamespace` API operation of Container Registry Advanced Edition is called.

 Note

You must use the actual values to replace the variables in the following sample code. The angle brackets <> are not retained in the final code.

The following list describes the variables:

- <accessKeyId>: Replace it with your actual AccessKey ID.
- <accessKeySecret>: Replace it with your actual AccessKey secret.
- <securityToken>: Replace it with your actual security token.


```
// This file is auto-generated, don't edit it. Thanks.
package com.aliyun.sample;

import com.aliyun.tea.*;
import com.aliyun.cr20181201.*;
import com.aliyun.cr20181201.models.*;
import com.aliyun.teaopenapi.*;
import com.aliyun.teaopenapi.models.*;

public class Sample {

    /**
     * Use your AccessKey ID and AccessKey secret to initialize the client.
     * @param accessKeyId
     * @param accessKeySecret
     * @return Client
     * @throws Exception
     */
    public static com.aliyun.cr20181201.Client createClient(String accessKeyId, String
accessKeySecret, String securityToken) throws Exception {
        // accessKeyId, accessKeySecret, and securityToken: Replace them with the Access
Key ID, AccessKey secret, and security token that you obtained in the previous step.
        Config config = new Config()
            // Your AccessKey ID.
            .setAccessKeyId(accessKeyId)
            // Your AccessKey secret.
            .setAccessKeySecret(accessKeySecret)
            // Your security token.
            .setSecurityToken(securityToken);
        // The endpoint.
        config.endpoint = "cr.cn-shanghai.aliyuncs.com";
        return new com.aliyun.cr20181201.Client(config);
    }

    public static void main(String[] args_) throws Exception {
        java.util.List<String> args = java.util.Arrays.asList(args_);
        com.aliyun.cr20181201.Client client = Sample.createClient("accessKeyId", "accessKeySecret", "securityToken");
        CreateNamespaceRequest createNamespaceRequest = new CreateNamespaceRequest();
        // Obtain the return value of the API operation after the sample code is run.
        client.createNamespace(createNamespaceRequest);
    }
}
```

1.2.5. Obtain the values of common headers

You must provide multiple headers when you call Apsara Stack operations. This topic describes the headers and how to obtain the values of the headers. This topic also describes the return values of some headers after you call Apsara Stack operations.

Headers

Header	Description
x-acs-regionid	The ID of the region. For more information about how to obtain region IDs, see Obtain a region ID .
x-acs-organizationid	The ID of the organization in the Apsara Uni-manager Management Console. For more information about how to obtain organization IDs, see Obtain an organization ID .
x-acs-resourcegroupid	The ID of the resource set in the Apsara Uni-manager Management Console. For more information about how to obtain resource set IDs, see Obtain a resource set ID .
x-acs-instanceid	The ID of the instance on which you want to perform operations. For more information about how to obtain instance IDs, see Obtain an instance ID .

Obtain a region ID

1. Log on to the Apsara Uni-manager Management Console as an administrator.
2. In the top navigation bar, click **Enterprise**.
3. In the left-side navigation pane, choose **Resources > Regions**.
4. Click the name of the required organization.
5. View the region ID in the **Regions** section.

Obtain an organization ID

You must call an operation to obtain an organization ID. For more information about how to obtain organization IDs, see the *GetOrganizationList* section in *Apsara Uni-manager Management Console Developer Guide*.

Obtain a resource set ID

You must call an operation to obtain a resource set ID. For more information about how to obtain resource set IDs, see the *ListResourceGroup* section in *Apsara Uni-manager Management Console Developer Guide*.

Obtain an instance ID

You can obtain the ID of an instance in the cloud service console of the Apsara Uni-manager Management Console. Perform the following operations to obtain an instance ID:

1. Log on to the Apsara Uni-manager Management Console.
2. In the top navigation bar, choose **Products > Elastic Computing > Container Registry**.

3. On the **Instances** page, click the name of an Apsara Stack Advanced Edition instance.
4. On the **Overview** page, view the **Instance ID** in the Instance section.

Response parameters

The following response parameters are returned by default when you call operations to query the instances of cloud services.

Parameter	Description
ResourceGroupName	The name of the resource set.
ResourceGroup	The ID of the resource set.
DepartmentName	The name of the organization.
Department	The ID of the organization.

1.2.6. Obtain the endpoint of Container Registry

This topic describes how to obtain the endpoint of Container Registry.

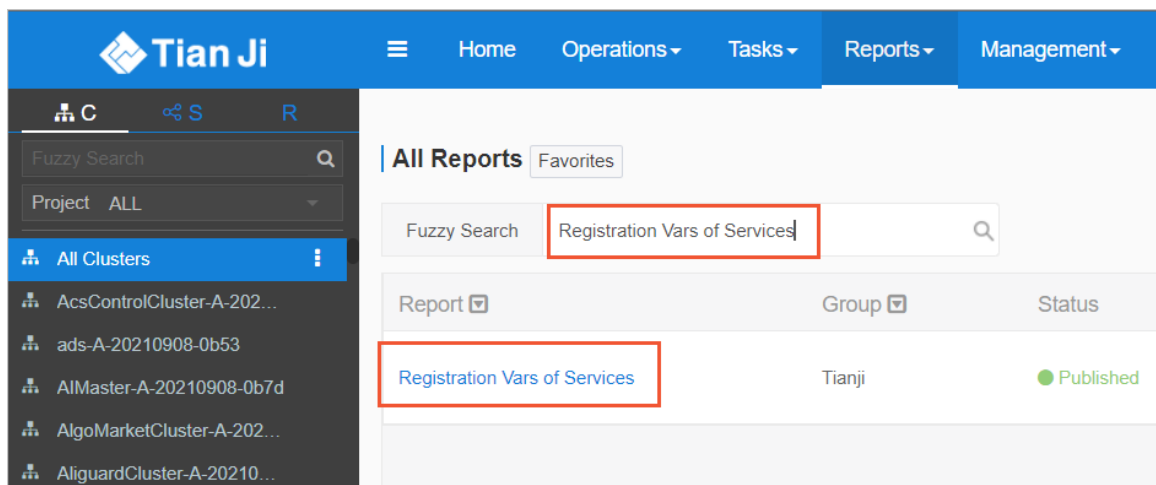
Background information

To use points of presence (POPs) to call Apsara Stack API operations, you must obtain the service endpoint. You can obtain service endpoints from Alibaba Cloud onsite O&M engineers. You can also perform the following operations to obtain the endpoint.

Procedure

1. Log on to the Apsara Infrastructure Management console.
 - i. Log on to the Apsara Uni-manager Operations Console.
 - ii. In the top navigation bar, choose **Products > Platforms > Apsara Infrastructure Management Framework**.
2. In the left-side navigation pane, click **Reports**.

- On the **All Reports** page, search for `Registration Vars of Services`. In the report list that appears, click the name of the report.



- On the **Registration Vars of Services** page, click the  icon next to **Service** and search for `acr`.

- View the endpoint of Container Registry Advanced Edition.

Right-click the **Service Registration** column that corresponds to `acr-ee` and select **Show More** from the shortcut menu.

On the **Details** page, view the `cr.openapi.endpoint` value, which is the `endpoint` of Container Registry Advanced Edition.

- View the endpoint of Container Registry Standard Edition.

Right-click the **Service Registration** column that corresponds to `acr` and select **Show More** from the shortcut menu.

On the **Details** page, view the `cr.openapi.endpoint` value, which is the `endpoint` of Container Registry Standard Edition.

1.2.7. Obtain the Container Registry SDK

To use points of presence (POPs) to call Apsara Stack API operations, you must use the Container Registry SDK. This topic describes how to obtain Alibaba Cloud SDKs.

An SDK includes code and examples. You can create cloud applications by using an SDK in the programming language that you require.

The SDKs for Java, Python, and Go are provided. You can select the SDKs from [Alibaba Cloud SDKs](#) based on your business requirements.

 Note

We recommend that you use an SDK for Java, Python, or Go. If you use SDKs in other programming languages, the SDKs may be incompatible with your system.

We recommend that you use the SDK core library that is provided on the Alibaba Cloud official website. The SDK core library is shared by all cloud services and is compatible with Apsara Stack.

1.3. Standard SDK

1.3.1. SDK for Java

1.3.1.1. Install Java

This topic describes how to install Java.

Environment requirements

- You must use Java 6 or later.
- To install the core library of Alibaba Cloud SDK for Java, you can add the following dependency to the POM file:

 **Note** In the following example, the core library of SDK V4.5.21 is installed.

```
<dependency>
  <groupId>com.aliyun</groupId>
  <artifactId>aliyun-java-sdk-core</artifactId>
  <version>4.5.21</version>
</dependency>
```

Install Container Registry SDK.

To install Container Registry SDK for Java by using Apache Maven, add the following dependency to the project file:

 **Note** In the following example, SDK V4.1.2 is installed.

```
<dependency>
  <groupId>com.aliyun</groupId>
  <artifactId>aliyun-java-sdk-cr</artifactId>
  <version>4.1.2</version>
</dependency>
```

1.3.1.2. Call SDK for Java

This topic describes how to call SDK for Java.

Sample code

```

import com.aliyuncs.CommonRequest;
import com.aliyuncs.CommonResponse;
import com.aliyuncs.DefaultAcsClient;
import com.aliyuncs.IAcsClient;
import com.aliyuncs.exceptions.ClientException;
import com.aliyuncs.exceptions.ServerException;
import com.aliyuncs.http.FormatType;
import com.aliyuncs.http.MethodType;
import com.aliyuncs.profile.DefaultProfile;
/*
pom.xml
<dependency>
  <groupId>com.aliyun</groupId>
  <artifactId>aliyun-java-sdk-core</artifactId>
  <version>4.5.16</version>
</dependency>
*/
public class GetNamespace {
    public static void main(String[] args) {
        DefaultProfile profile = DefaultProfile.getProfile("cn-wl-e****", "<your-access-key-id>", "<your-access-key-secret>");
        /** use STS Token
        DefaultProfile profile = DefaultProfile.getProfile(
            "<your-region-id>",          // The region ID
            "<your-access-key-id>",      // The AccessKey ID of the RAM account
            "<your-access-key-secret>",  // The AccessKey Secret of the RAM account
            "<your-sts-token>");        // STS Token
        */
        IAcsClient client = new DefaultAcsClient(profile);
        CommonRequest request = new CommonRequest();
        //request.setProtocol(ProtocolType.HTTPS);
        request.setMethod(MethodType.GET);
        request.setDomain("cr.registry.inter.e****.shuguang.com");
        request.setVersion("2016-06-07");
        request.setUriPattern("/namespace/fc-example");
        request.putHeadParameter("Content-Type", "application/json");
        String requestBody = "" +
            "{}";
        request.setHttpContent(requestBody.getBytes(), "utf-8", FormatType.JSON);
        try {
            CommonResponse response = client.getCommonResponse(request);
            System.out.println(response.getData());
        } catch (ServerException e) {
            e.printStackTrace();
        } catch (ClientException e) {
            e.printStackTrace();
        }
    }
}

```

1.3.2. SDK for Python

1.3.2.1. Installation

This topic describes how to install SDK for Python.

Environment requirements

- Python 3
- Install Alibaba Cloud SDK for Python by using the pip tool:

```
pip install aliyun-python-sdk-core
```

Install the Container Registry SDK.

- PyPI PIP

```
pip install aliyun-python-sdk-cr==4.1.2
```

- PyPI Anaconda

```
conda install aliyun-python-sdk-cr=4.1.2
```

1.3.2.2. Usage

This topic describes how to use SDK for Python.

Sample code

```
#!/usr/bin/env python
#coding=utf-8
from aliynsdcore.client import AcsClient
from aliynsdcore.request import CommonRequest
from aliynsdcore.auth.credentials import AccessKeyCredential
from aliynsdcore.auth.credentials import StsTokenCredential
credentials = AccessKeyCredential('<your-access-key-id>', '<your-access-key-secret>')
# use STS Token
# credentials = StsTokenCredential('<your-access-key-id>', '<your-access-key-secret>', '<your-sts-token>')
client = AcsClient(region_id='cn-wl-e****', credential=credentials)
request = CommonRequest()
request.set_accept_format('json')
request.set_method('GET')
request.set_protocol_type('https') # https | http
request.set_domain('cr.registry.inter.e****.shuguang.com')
request.set_version('2016-06-07')
request.add_header('Content-Type', 'application/json')
request.set_uri_pattern('/namespace/fc-example')
body = '{}{}'
request.set_content(body.encode('utf-8'))
response = client.do_action_with_exception(request)
# python2: print(response)
print(str(response, encoding = 'utf-8'))
```

1.4. Container Registry Advanced Edition SDKs

1.4.1. SDK for Java

1.4.1.1. Installation

This topic describes how to install SDK for Java.

Environment requirements

- You must use Java 8 or later.
- To install OpenAPI Portal SDK for Java, you can add the following dependency to the POM file:

 **Note** In this topic, a dependency of version 0.0.19 is used.

```
<dependency>
  <groupId>com.aliyun</groupId>
  <artifactId>tea-openapi</artifactId>
  <version>0.0.19</version>
</dependency>
```

Install the Container Registry SDK.

To install the Container Registry SDK for Java by using Apache Maven, add the following dependency to the project file:

 **Note** In this topic, a dependency of version 1.0.1 is used.

```
<dependency>
  <groupId>com.aliyun</groupId>
  <artifactId>cr20181201</artifactId>
  <version>1.0.1</version>
</dependency>
```

1.4.1.2. Usage

This topic describes how to use the SDK for Java.

Procedure

1. Initialize the `com.aliyun.teaopenapi.models.Config` object.

The Config object contains the `access_key_id`, `access_key_secret`, and `endpoint` configurations.


```
Config config = new Config()
    // Your AccessKey ID.
    .setAccessKeyId(accessKeyId)
    // Your AccessKey secret.
    .setAccessKeySecret(accessKeySecret); // The endpoint.
config.endpoint = "cr-ee.cn-qingdao***.shuguang.com";
```

2. Instantiate a client object from the `com.aliyun.cr20181201.Client` class.

Request and Response parameters for subsequent API calls are obtained from `com.aliyun.cr20181201.models`.

```
Client client = new Client(config);
```

3. Create a request based on the required API operation.

The class is named after the API operation, followed by `Request`.

```
GetArtifactBuildTaskRequest request = new GetArtifactBuildTaskRequest();
```

4. Configure request parameters.

You must set the required properties for the request class.

```
request.InstanceId = "test"; // Specify the parameter based on your needs.
request.BuildTaskId = "test"; // Specify the parameter based on your needs.
```

5. Obtain a response by using the client object.

```
GetArtifactBuildTaskResponse response = client.getArtifactBuildTask(request);
System.out.println(new Gson().toJson(response.Body));
```

6. Obtain a response parameter by calling the corresponding property.

In this example, the `requestId` response is obtained.

```
String requestId = response.Body.requestId;
```

7. Use the `catch()` syntax to handle errors.

```
catch (Exception e) {
    e.printStackTrace();
}
```

Sample code

```
// This file is auto-generated, don't edit it. Thanks.
package com.aliyun.sample;
import com.aliyun.tea.*;
import com.aliyun.cr20181201.*;
import com.aliyun.cr20181201.models.*;
import com.aliyun.teaopenapi.*;
import com.aliyun.teaopenapi.models.*;
public class Sample {
    /**
     * Use your AccessKey ID and AccessKey secret to initialize the client.
     * @param accessKeyId
     * @param accessKeySecret
     * @return Client
     * @throws Exception
     */
    public static com.aliyun.cr20181201.Client createClient<String accessKeyId, String accessKeySecret> throws Exception {
        Config config = new Config()
            // Your AccessKey ID.
            .setAccessKeyId<accessKeyId>
            // Your AccessKey secret.
            .setAccessKeySecret<accessKeySecret>;
        // The endpoint.
        config.endpoint = "cr-ee.registry.cn-wl-en****.inter.en****.shuguang.com";
        return new com.aliyun.cr20181201.Client(config);
    }
    public static void main(String[] args_) throws Exception {
        java.util.List<String> args = java.util.Arrays.asList(args_);
        com.aliyun.cr20181201.Client client = Sample.createClient<"accessKeyId", "accessKeySecret">;
        GetNamespaceRequest getNamespaceRequest = new GetNamespaceRequest()
            .setInstanceId("cri-pri****")
            .setNamespaceName("test12");
        // After you copy and run the sample code, use the following object to query the response data of the request:
        client.getNamespace(getNamespaceRequest);
    }
}
```

1.4.2. SDK for Python

1.4.2.1. Installation

This topic describes how to install SDK for Python.

Environment requirements

- Python 3
- Install Alibaba Cloud SDK for Python by using the pip tool:

```
pip install alibabacloud_tea_openapi>
```

Install the Container Registry SDK.

- PyPI PIP

```
pip install alibabacloud_cr20181201==1.0.3
```

- PyPI Anaconda

```
conda install alibabacloud_cr20181201=1.0.3
```

1.4.2.2. Usage

This topic describes how to use SDK for Python.

Procedure

1. Initialize the `alibabacloud_tea_openapi.Config` object.

The Config object contains the `access_key_id` , `access_key_secret` , and `endpoint` configurations.

```
from alibabacloud_tea_openapi import models as open_api_models
config = open_api_models.Config(
    # Your AccessKey ID.
    access_key_id=access_key_id,
    # Your AccessKey secret.
    access_key_secret=access_key_secret
)
# The endpoint.
config.endpoint = 'cr.cn-hangzhou.aliyuncs.com'
```

2. Instantiate a client object from the `com.aliyun.cr20181201.Client` class.

Request and Response parameters for subsequent API calls are obtained from `com.aliyun.cr20181201.models`.

```
from alibabacloud_cr20181201.client import Client as Client
from alibabacloud_cr20181201 import models as models
client = Client(config)
```

3. Create a request based on the required API operation.

The method is in the `Create<%- api %>Request()` format.

```
request = models.CreateGetArtifactBuildTask()
```

4. Configure request parameters.

You must set the required properties for the request class.

```
// Set parameters based on your needs.
request.InstanceId = "test";
// Set parameters based on your needs.
request.BuildTaskId = "test";
```

5. Obtain a response by using the client object.

```
requestId = response.body.requestId
print(requestId)
```

6. Obtain a response parameter by calling the corresponding property.

In this example, the `requestId` response is obtained.

```
String requestId = response.Body.requestId;
```

7. Use the try...except... syntax to handle errors.

```
from Tea.exceptions import UnretryableException
try:
    response = client.describe_images(request)
except UnretryableException as e:
    # Server Error
    print(e.inner_exception.code)
    print(e.inner_exception.message)
except Exception as e:
    print(e)
```

Sample code

```
# -*- coding: utf-8 -*-
# This file is auto-generated, don't edit it. Thanks.
import sys
from typing import List
from alibabacloud_cr20181201.client import Client as cr20181201Client
from alibabacloud_tea_openapi import models as open_api_models
from alibabacloud_cr20181201 import models as cr_20181201_models
class Sample:
    def __init__(self):
        pass
    @staticmethod
    def create_client(
        access_key_id: str,
        access_key_secret: str,
    ) -> cr20181201Client:
        """
        Use your AccessKey ID and AccessKey secret to initialize the client.
        @param access_key_id:
        @param access_key_secret:
        @return: Client
        @throws Exception
        """
        config = open_api_models.Config(
            # Your AccessKey ID.
            access_key_id=access_key_id,
            # Your AccessKey secret.
            access_key_secret=access_key_secret
        )
        # The endpoint.
        config.endpoint = 'cr-ee.registry.cn-wl-en****.inter.en****.shuguang.com'
        return cr20181201Client(config)
    @staticmethod
```

```

def main(
    args: List[str],
) -> None:
    client = Sample.create_client('accessKeyId', 'accessKeySecret')
    get_namespace_request = cr_20181201_models.GetNamespaceRequest(
        instance_id='cri-pri****',
        namespace_name='test12'
    )
    # After you copy and run the sample code, use the following object to query the response data of the request:
    client.get_namespace(get_namespace_request)
    @staticmethod
    async def main_async(
        args: List[str],
    ) -> None:
        client = Sample.create_client('accessKeyId', 'accessKeySecret')
        get_namespace_request = cr_20181201_models.GetNamespaceRequest(
            instance_id='cri-pri****',
            namespace_name='test12'
        )
        # After you copy and run the sample code, use the following object to query the response data of the request:
        await client.get_namespace_async(get_namespace_request)
    if __name__ == '__main__':
        Sample.main(sys.argv[1:])

```

1.4.3. SDK for Go

1.4.3.1. Installation

This topic describes how to install SDK for Go.

Environment requirements

- The Go version must be 1.10.x or later.
- Alibaba Cloud SDK for Go is installed.

```
go get github.com/alibabacloud-go/darabonba-openapi/client
```

Install the Container Registry SDK.

To install Container Registry SDK for Go, we recommend that you run the following command:

```
go get github.com/alibabacloud-go/cr-20181201
```

1.4.3.2. Usage

This topic describes how to use SDK for Go.

Procedure

1. Add the following dependencies:

```
import (  
    cr "github.com/alibabacloud-go/cr-20181201/client"  
    openapi "github.com/alibabacloud-go/darabonba-openapi/client"  
)
```

2. Initialize the `&openapi.Config` object.

The `Config` object contains the `access_key_id`, `access_key_secret`, and `endpoint` configurations.

```
config := &openapi.Config{  
    // Your AccessKey ID.  
    AccessKeyId: accessKeyId,  
    // Your AccessKey secret.  
    AccessKeySecret: accessKeySecret,  
}  
// The endpoint.  
config.Endpoint = tea.String("cr.cn-hangzhou.aliyuncs.com")
```

3. Instantiate a client object from the `&cr.Client` class.

```
client, _ := cr.NewClient(config)
```

4. Create a request based on the required API operation.

The method is named after the API operation, followed by `Request`.

```
request := &cr.GetArtifactBuildTaskRequest{}
```

5. Configure request parameters.

You must set the required properties for the request class.

```
// Set parameters based on your needs.  
request.SetInstanceId("test")  
// Set parameters based on your needs.  
request.SetBuildTaskId("test")
```

6. Obtain a response by using the client object.

```
response, err := client.GetArtifactBuildTask(request)  
fmt.Println(response)
```

7. Use the `err` syntax to handle errors.

```
if err != nil {  
    fmt.Println(err)  
    return  
}
```

8. Obtain a response parameter by calling the corresponding property.

In this example, the `requestId` response is obtained.

```
fmt.Println(tea.StringValue(response.Body.ImageId))
```

Sample code

```
// This file is auto-generated, don't edit it. Thanks.
package main
import (
    "os"
    cr20181201 "github.com/alibabacloud-go/cr-20181201/client"
    openapi "github.com/alibabacloud-go/darabonba-openapi/client"
    "github.com/alibabacloud-go/tea/tea"
)
/**
 * Use your AccessKey ID and AccessKey secret to initialize the client.
 * @param accessKeyId
 * @param accessKeySecret
 * @return Client
 * @throws Exception
 */
func CreateClient (accessKeyId *string, accessKeySecret *string) (_result *cr20181201.Client, _err error) {
    config := &openapi.Config{
        // Your AccessKey ID.
        AccessKeyId: accessKeyId,
        // Your AccessKey secret.
        AccessKeySecret: accessKeySecret,
    }
    // The endpoint.
    config.Endpoint = tea.String("cr-ee.registry.cn-wl-en****.inter.en****.shuguang.com")
    _result = &cr20181201.Client{}
    _result, _err = cr20181201.NewClient(config)
    return _result, _err
}
func _main (args []*string) (_err error) {
    client, _err := CreateClient(tea.String("accessKeyId"), tea.String("accessKeySecret"))
    if _err != nil {
        return _err
    }
    getNamespaceRequest := &cr20181201.GetNamespaceRequest{
        InstanceId: tea.String("cri-pri****"),
        NamespaceName: tea.String("test12"),
    }
    // After you copy and run the sample code, use the following object to query the response data of the request:
    _, _err = client.GetNamespace(getNamespaceRequest)
    if _err != nil {
        return _err
    }
    return _err
}
func main() {
    err := _main(tea.StringSlice(os.Args[1:]))
    if err != nil {
        panic(err)
    }
}
```


2.API references for Container Registry Standard Edition

2.1. Make API requests

2.1.1. Common request parameters

This topic provides the common request parameters and common responses of Container Registry API operations.

Common request parameters

Common request parameters must be included in all API requests.

Parameter	Description	Required
Authorization	The authentication information used to check the authenticity of a request. Format: <code>AccessKeyId:Signature</code> .	Yes
Content-Length	The length of the HTTP request content. This length is specified in RFC 2616.	Yes
Content-Type	The type of HTTP request content. This type must follow the format that is specified in RFC 2616.	Yes
Content-MD5	The 128-bit MD5 hash value of the HTTP message body. The hash value is encoded in the Base64 format. We recommend that you set this parameter for all requests to prevent parameter tampering.	Yes
Date	The time when a request is created. The time must be in GMT. If the deviation between the time when the request was sent and the time when the request was received exceeds 15 minutes, the request is considered invalid.	Yes
Host	The URL of the host to which the request is sent. Example: <code>cr.cn-hangzhou.aliyuncs.com</code> .	Yes

Parameter	Description	Required
Accept	The type of response that is required by the client. Valid values: application/json and application/xml.	Yes
x-acs-version	The version of the API.	Yes
x-acs-region-id	The region where the container image is located.	Yes
x-acs-signature-nonce	A unique random number that is used to prevent replay attacks. A different random number is required for each request.	Yes
x-acs-signature-method	The encryption method of the signature string. Set the value to HMAC-SHA1.	Yes

Examples

```
GET /namespaces HTTP/1.1
Authorization: acs ACSbW2iBbyX1Pk9N:mp/6Wdr18V3qAc5gbgsqMe/iB0c
Content-Length: 0
Content-Type: application/json;charset=utf-8
Date: Wed, 23 May 2018 12:00:01 GMT
Host: cr.cn-hangzhou.aliyuncs.com
Accept: application/json
x-acs-version: 2016-06-07
x-acs-region-id: cn-hangzhou
x-acs-signature-nonce: f63659d4-10ac-483b-99da-ea8fde61eae3
x-acs-signature-version: 1.0
x-acs-signature-method: HMAC-SHA1
User-Agent: cr-sdk-python/3.0.0 (Darwin/15.2.0/x86_64;2.7.10)
```

Common responses

Every response returns a unique request ID regardless of whether the call is successful.

Examples

XML format:

```
<?xml version="1.0" encoding="UTF-8"?>
<API operation name + Response>
  <!--Returned request tag-->
  <RequestId>4C467B38-3910-447D-87BC-AC049166F216</RequestId>
  <!--Returned data-->
</API operation name+Response>
```

JSON format:

```
{
  "RequestId": "4C467B38-3910-447D-87BC-AC049166F216"
  /* Returned data */
}
```

2.1.2. Request syntax

This topic describes the syntax that you must follow when you make Container Registry API requests.

Protocols

You can send API requests over HTTP or HTTPS. We recommend that you use HTTPS to ensure higher security.

Request methods

The following HTTP methods are supported: PUT, POST, GET, and DELETE.

Request parameters

Each request must contain [Common request parameters](#) and operation-specific request parameters.

Encoding

All requests and responses are encoded in `UTF-8`.

2.1.3. Request signatures

You must sign all API requests to ensure security. Alibaba Cloud uses the request signature to verify the identity of the API caller.

Signature

A signature consists of two parts: common request header and CanonicalizedResource. The request body is not included in the signature. The common request header contains HTTP header parameters and Alibaba Cloud protocol header parameters.

AccessKey pairs are issued by Alibaba Cloud. You can visit the official Alibaba Cloud website to apply for and manage an AccessKey pair. An AccessKey pair consists of an `AccessKey ID` and an `AccessKey secret`. The `AccessKey ID` is used to verify the identity of the user, while the `AccessKey secret` is used to encrypt and verify the signature string. You must keep your AccessKey secret strictly confidential.

Container Registry verifies each access request it receives. Therefore, all requests sent to Container Registry must contain signature information. Container Registry implements symmetric encryption with an AccessKey pair that consists of an `AccessKey ID` and an `AccessKey secret` to verify the identity of the request sender. If the calculated verification code is the same as the one provided, the request is considered valid. Otherwise, Container Registry rejects the request and returns the HTTP error code 403.

You must add the signature to the HTTP header in the following format: `Authorization: acs [AccessKey Id]:[Signature]`.

Signature calculation method

The following code shows how to calculate the signature:

```
Signature = base64(hmac-sha1(VERB + "\n"
    + ACCEPT + "\n"
    + Content-MD5 + "\n"
    + Content-Type + "\n"
    + Date + "\n"
    + CanonicalizedHeaders + "\n"
    + CanonicalizedResource))
```

- `VERB` indicates the HTTP method. Example: PUT.
- `Accept` indicates the response type required by the client. Valid values: application/json and application/xml.
- `Content-MD5` indicates the MD5 hash value of the request content.
- `Content-Type` indicates the type of request content.
- `Date` indicates the time when the request was sent. This parameter is required. The time must be in GMT. If the deviation between the time when a request was sent and the time when the request was received exceeds 15 minutes, the system determines that the request is invalid and returns the error code 400. Example: `Thu, 17 Mar 2018 18:00:00 GMT`.
- `CanonicalizedHeaders` indicates the header fields that are prefixed with `x-acs-` in the request.
- `CanonicalizedResource` indicates the URI of the requested resource. Example: `/namespaces`.

CanonicalizedHeaders

CanonicalizedHeaders (headers that start with `x-acs-`) must comply with the following specifications before the signature is verified:

1. Convert the names of all HTTP request headers prefixed with `x-acs-` to lowercase letters. For example, you must convert `X-ACS-Meta-Name: TaoBao` into `x-acs-meta-name: TaoBao`. Header field names are case-insensitive. We recommend that you use lowercase letters.
2. If a header field value is too long, replace specific delimiters with spaces. The delimiters include `\t`, `,`, `\n`, `\r`, and `\f`.
3. Sort all HTTP request headers that are obtained from the preceding step in alphabetical order.
4. Delete all spaces on each side of the delimiter between each header and head value. For example, convert `x-acs-meta-name: TaoBao, Alipay` into `x-acs-meta-name:TaoBao,Alipay`.
5. Separate all headers and content with delimiters (`\n`) to form the final canonicalized headers.

CanonicalizedResource

CanonicalizedResource represents the specification description of the resource that you want to access. Arrange sub-resources and query parameters in alphabetical order. Then, separate the parameters with ampersands (&) to generate a sub-resource string. The sub-resource string consists of all parameters that follow the question mark (?).

```
http://cr.cn-hangzhou.aliyuncs.com/repository?name=repository1&namespace=namespace1
```

The value of CanonicalizedResource must be the following string:

```
/repository?name=repository1&namespace=namespace1
```

2.2. Manage namespaces

2.2.1. CreateNamespace

Creates a namespace.

Request information

Request line

```
PUT /namespace HTTP/1.1
```

Request line parameters

None.

Operation-specific request headers

None.

Request body

Request Body:

```
{
  "Namespace": {
    "Namespace": "String",
  }
}
```

Request body parameters

Parameter	Type	Required	Description
Namespace	String	Yes	The name of the namespace. The name must be 2 to 30 characters in length, and can contain lowercase letters, digits, hyphens (-), and underscores (_). It cannot start with a hyphen (-) or an underscore (_).

Response information

Response line

```
HTTP/1.1 200 OK
```

Operation-specific response headers

None.

Response body

```
{
  "data": {
    "namespaceId": Long
  },
  "requestId": "String"
}
```

Examples

Sample requests

```
PUT /namespace HTTP/1.1
<Common request headers>
{
  "Namespace": {
    "Namespace": "aliyun",
  }
}
```

Sample success responses

```
HTTP/1.1 200 OK
<Common response headers>
{
  "data": {},
  "requestId": "589EA3A1-9A67-4B82-95E5-11B1740178D1"
}
```

2.2.2. DeleteNamespace

Deletes an existing namespace. After you delete a namespace, all repositories in the namespace and all images in the repositories are deleted.

Request information

Request line

```
DELETE /namespace/[Namespace] HTTP/1.1
```

Request line parameters

Parameter	Type	Required	Description
Namespace	String	Yes	The name of the namespace. The name must be 2 to 30 characters in length, and can contain lowercase letters, digits, hyphens (-), and underscores (_). It cannot start with a hyphen (-) or an underscore (_).

Operation-specific request headers

None.

Request body

None.

Request body parameters

None.

Response information

Response line

```
HTTP/1.1 200 OK
```

Operation-specific response headers

None.

Response body

```
{
  "data": {},
  "requestId": "string"
}
```

Examples

Sample requests

```
DELETE /namespace/[Namespace] HTTP/1.1
<Common request headers>
```

Sample success responses

```
HTTP/1.1 200 OK
<Common response headers>
{
  "data": {},
  "requestId": "CBC151B2-C9B6-4393-9A7F-712C920F1DC7"
}
```

2.2.3. UpdateNamespace

Updates the basic information about a namespace.

Request information

Request line

```
POST /namespace/[Namespace] HTTP/1.1
```

Request line parameters

Parameter	Type	Required	Description
Namespace	String	Yes	The name of the namespace.

Operation-specific request headers

None.

Request body

```
{
  "Namespace": {
    "AutoCreate": Boolean,
    "DefaultVisibility": String
  }
}
```

Request body parameters

Parameter	Type	Required	Description
AutoCreate	Boolean	Yes	Specifies whether to automatically create a repository.
DefaultVisibility	String	Yes	The default visibility of repositories that are created in the namespace.

Response information

Response line

```
HTTP/1.1 200 OK
```

Operation-specific response headers

None.

Response body

```
{
  "data": {},
  "requestId": "string"
}
```

Examples

Sample requests

```
POST /namespace/[Namespace] HTTP/1.1
<Common request headers>
{
  "Namespace": {
    "AutoCreate": false,
    "DefaultVisibility": "PUBLIC"
  }
}
```

Sample success responses

```
HTTP/1.1 200 OK
<Common response headers>
{
  "data": {},
  "requestId": "AL103117-2140-4A69-AC1A-BE69N040D01A"
}
```

2.2.4. GetNamespace

Queries the detailed information about a specified namespace.

Request information

Request line

```
GET /namespace/[Namespace] HTTP/1.1
```

Request parameters

Parameter	Type	Required	Description
-----------	------	----------	-------------

Parameter	Type	Required	Description
Namespace	String	Yes	The name of the namespace. The name must be 2 to 30 characters in length, and can contain lowercase letters, digits, hyphens (-), and underscores (_). It cannot start with a hyphen (-) or an underscore (_).

Operation-specific request headers

None.

Request body

None.

Request body parameters

None.

Response information

Response line

```
HTTP/1.1 200 OK
```

Operation-specific response headers

None.

Response body

```
{
  "data": {
    "namespace": {
      "namespace": "String",
      "authorizeType": "String",
      "defaultVisibility": "String",
      "autoCreate": "Boolean",
      "namespaceStatus": "String"
    }
  },
  "requestId": "String"
}
```

Response parameters

Parameter	Type	Description
namespace	String	The name of the namespace.

Parameter	Type	Description
authorizeType	String	The permissions that the current account has on the namespace. You can acquire the permissions only in the Container Registry console.
defaultVisibility	String	The default visibility of repositories that are created in the namespace.
autoCreate	String	Indicates whether to automatically create a repository when an image is pushed. If the feature is disabled, you must create a repository before you push an image.
namespaceStatus	String	The state of the namespace. Valid values: NORMAL and DELETING.

Examples

Sample requests

```
GET /namespace/[Namespace] HTTP/1.1
<Common request headers>
```

Sample success responses

```
HTTP/1.1 200 OK
<Common response headers>
{
  "data": {
    "namespace": {
      "namespace": "aliyun",
      "authorizeType": "ADMIN",
      "defaultVisibility": "PRIVATE",
      "autoCreate": true,
      "namespaceStatus": "NORMAL"
    }
  },
  "requestId": "19228CE5-4905-4A24-A2C1-E774F32CCC31"
}
```

2.2.5. GetNamespaceList

Queries namespaces.

Request information

Request line

```
GET /namespace HTTP/1.1
```

Request line parameters

None.

Operation-specific request headers

None.

Request body

None.

Request body parameters

None.

Response information

Response line

```
HTTP/1.1 200 OK
```

Operation-specific response headers

None.

Response body

```
{
  "data": {
    "namespace": [
      {
        "namespace": "String",
        "authorizeType": "String",
        "namespaceStatus": "String"
      }
    ]
  },
  "requestId": "string"
}
```

Response body parameters

Parameter	Type	Description
namespace	String	The name of the namespace.
authorizeType	String	The permissions that the current account has on the namespace. You can acquire the permissions only in the Container Registry console.

Parameter	Type	Description
namespaceStatus	String	The state of the namespace. Valid values: NORMAL and DELETING.

Examples

Sample requests

```
GET /namespace HTTP/1.1
<Common request headers>
```

Sample success responses

```
HTTP/1.1 200 OK
<Common response headers>
{
  "data": {
    "namespaces": [
      {
        "namespace": "aliyun",
        "authorizeType": "ADMIN",
        "namespaceStatus": "NORMAL"
      },
      {
        "namespace": "alibaba",
        "authorizeType": "ADMIN",
        "namespaceStatus": "NORMAL"
      }
    ]
  },
  "requestId": "AB034FC3-27E8-4E34-958B-0944E369270B"
}
```

2.3. Image repository management

2.3.1. CreateRepo

Creates a repository.

Request information

Request line

```
PUT /repos HTTP/1.1
```

Request line parameters

None.

Operation-specific request headers

None.

Request body

Request Body:

```
{
  "Repo": {
    "RepoNamespace": "String" //This parameter is required. The value must be 2 to 30 characters in length.
    "RepoName": "String" //This parameter is required. The value must be 2 to 30 characters in length.
    "Summary": "String" //This parameter is required. The value must be 1 to 100 characters in length.
    "Detail": "String" //This parameter is optional. The value of the parameter cannot exceed 2,000 characters in length. The Markdown syntax is supported.
    "RepoType": "String" //This parameter is required. Valid values: PRIVATE and PUBLIC.
  }
}
```

Request body parameters

Parameter	Type	Required	Description
RepoNamespace	String	Yes	The namespace to which the image repository belongs. The name of the namespace must be 2 to 30 characters in length, and can contain lowercase letters, digits, hyphens (-), and underscores (_). It cannot start with a hyphen (-) or an underscore (_).
RepoName	String	Yes	The name of the image repository. The name must be 1 to 64 characters in length, and can contain lowercase letters, digits, hyphens (-), and underscores (_). It cannot start with a hyphen (-) or an underscore (_).

Parameter	Type	Required	Description
Summary	String	Yes	The summary of the repository. The summary must be 1 to 100 characters in length.
Detail	String	No	The detailed information about the repository. The Markdown syntax is supported. The value of this parameter cannot exceed 2,000 characters in length.
RepoType	String	Yes	The type of the repository. Valid values: PRIVATE and PUBLIC. Public repositories support anonymous downloads. To download images from a private repository, you must log on to the Container Registry console.

Response information

Response line

```
HTTP/1.1 200 OK
```

Operation-specific response headers

None.

Response body

```
{
  "data": {},
  "requestId": "String"
}
```

Examples

Sample requests

```
PUT /repos HTTP/1.1
<Common request headers>
{
  "repo": {
    "RepoNamespace": "aliyun",
    "RepoName": "Tengine",
    "Summary": "This is Aliyun Nginx",
    "RepoType": "PUBLIC"
  }
}
```

Sample success responses

```
HTTP/1.1 200 OK
<Common response headers>
{
  "data": {},
  "requestId": "80705201-FE46-4C08-AE30-FD50F5930993"
}
```

2.3.2. DeleteRepo

Deletes an existing repository. After you delete a repository, all images in the repository are deleted.

Request information

Request line

```
DELETE /repos/[RepoNamespace]/[RepoName] HTTP/1.1
```

Request line parameters

Parameter	Type	Required	Description
RepoNamespace	String	Yes	The name of the namespace to which the repository belongs. The name of the namespace must be 2 to 30 characters in length, and can contain lowercase letters, digits, hyphens (-), and underscores (_). It cannot start with a hyphen (-) or an underscore (_).

Parameter	Type	Required	Description
RepoName	String	Yes	The name of the repository. The name must be 1 to 64 characters in length, and can contain lowercase letters, digits, hyphens (-), and underscores (_). It cannot start with a hyphen (-) or an underscore (_).

Operation-specific request headers

None.

Request body

None.

Request body parameters

None.

Response information

Response line

```
HTTP/1.1 200 OK
```

Operation-specific response headers

None.

Response body

```
{
  "data": {},
  "requestId": "string"
}
```

Examples

Sample requests

```
DELETE /repos/[RepoNamespace]/[RepoName] HTTP/1.1
<Common request headers>
```

Sample success responses

```
HTTP/1.1 200 OK
<Common response headers>
{
  "data": {},
  "requestId": "7BF6D761-E7F8-454C-A235-983E5D183B4E"
}
```

2.3.3. UpdateRepo

Updates the basic information about an image repository, including the repository type, summary, and description.

Request information

Request line

```
POST /repos/[RepoNamespace]/[RepoName] HTTP/1.1
```

Request line parameters

Parameter	Type	Required	Description
RepoNamespace	String	Yes	The name of the namespace to which the repository belongs.
RepoName	String	Yes	The name of the repository.

Operation-specific request headers

None.

Request body

```
{
  "Repo": {
    "Summary": "String",
    "Detail": "String",
    "RepoType": "String"
  }
}
```

Request body parameters

Parameter	Type	Required	Description
Summary	String	Yes	The summary of the repository.

Parameter	Type	Required	Description
Detail	String	No	The detailed information about the repository. The Markdown syntax is supported.
RepoType	String	Yes	The type of the repository. Valid values: PRIVATE and PUBLIC.

Response information

Response line

```
HTTP/1.1 200 OK
```

Operation-specific response headers

None.

Response body

```
{
  "data": {},
  "requestId": "String"
}
```

Examples

Sample requests

```
POST /repos/[RepoNamespace]/[RepoName] HTTP/1.1
<Common request headers>
{
  "Repo": {
    "Summary": "Test repository",
    "Detail": "This is a test repository",
    "RepoType": "PRIVATE"
  }
}
```

Sample success responses

```
HTTP/1.1 200 OK
<Common response headers>
{
  "data": {},
  "requestId": "F3103017-5928-4A69-AC1A-BE69A840D01A"
}
```

2.3.4. GetRepoTag

Queries the information about an image.

Request information

Request line

```
GET /repos/[RepoNamespace]/[RepoName]/tag/[Tag] HTTP/1.1
```

Request line parameters

Parameter	Type	Required	Description
RepoNamespace	String	Yes	The name of the namespace to which the repository belongs.
RepoName	String	Yes	The name of the repository.
Tag	String	Yes	The tag of the image.

Operation-specific request headers

None.

Request body

None.

Response information

Response line

```
HTTP/1.1 200 OK
```

Response body

```
{
  "imageUpdate": 1578625336000,
  "imageId": "6f08feb0be92c8ed2cc5b3e563313d2c08e468c1aa40d06908634884f236****",
  "requestId": "9AFB10K1-2301-4B00-A817-93249204****",
  "digest": "110acd135b0b71c38f10a6db02b0318d6ec731ec318cbfc5dad4cc182b54052",
  "tag": 1,
  "imageSize": 558063443,
  "imageCreate": 1577445220000,
  "status": "NORMAL"
}
```

Response body parameters

Parameter	Type	Description
imageUpdate	Long	The time when the image was last updated.
imageCreate	Long	The time when the image was created.
imageId	String	The ID of the image.
imageSize	String	The size of the image.
requestId	String	The ID of the request.
digest	String	The SHA-256 hash function of the image.
tag	String	The tag of the image.
status	String	The status of the image.

Examples

Sample requests

```
GET /repos/RepoNamespace/RepoName/tags/Tag HTTP/1.1 Common request header
{ "RepoName": "test", "RepoNamespace": "test", "Tag": "1.0" }
```

Sample success responses

```
HTTP/1.1 200 OK
<Common response headers>
{
  "imageUpdate": 1578625336000,
  "imageId": "6f08feb0be92c8ed2cc5b3e563313d2c08e468c1aa40d06908634884f236****",
  "requestId": "",
  "digest": "110acd135b0b71c38f10a6db02b0318d6ec731ec318cbfc5dadc4cc182b54052",
  "tag": 1,
  "imageSize": 558063443,
  "imageCreate": 1577445220000,
  "status": "NORMAL"
}
```

2.3.5. GetRepo

Queries the detailed information about a repository.

Request information

Request line

```
GET /repos/[RepoNamespace]/[RepoName] HTTP/1.1
```

Request line parameters

Parameter	Type	Required	Description
RepoNamespace	String	Yes	The name of the namespace to which the repository belongs.
RepoName	String	Yes	The name of the repository.

Operation-specific request headers

None.

Request body

None.

Response information

Response line

```
HTTP/1.1 200 OK
```

Operation-specific response headers

None.

Response body

```
{
  "data": {
    "repo": {
      "summary": String,
      "repoId": Long,
      "gmtCreate": Long,
      "gmtModified": Long,
      "repoNamespace": String,
      "repoName": String,
      "repoBuildType": String,
      "repoType": String,
      "repoDomainList": {
        "public": String,
        "vpc": String
      },
      "regionId": String,
      "repoStatus": String,
      "detail": String,
      "repoAuthorizeType": String
    }
  },
  "requestId": string
}
```

Response body parameters

Parameter	Type	Description
summary	String	The summary of the repository.
gmtCreate	Long	The time when the repository was created.
gmtModified	Long	The time when the repository was last modified.
repoNamespace	String	The name of the namespace to which the repository belongs.
repoName	String	The name of the repository.
repoBuildType	String	Indicates how the repository was created.
repoType	String	The type of the repository.
repoDomainList	Array	The domain names of the repository.
regionId	String	The ID of the region.
repoStatus	String	The status of the repository.
detail	String	The detailed information about the repository.
repoAuthorizeType	String	The permission type of the repository.

Examples

Sample requests

```
GET /repos/[RepoNamespace]/[RepoName] HTTP/1.1
<Common request headers>
```

Sample success responses

```
HTTP/1.1 200 OK
<Common response headers>
{
  "data":{
    "repo": {
      "summary": "test",
      "gmtCreate": 1524663834000,
      "gmtModified": 1524663871000,
      "repoNamespace": "test",
      "repoName": "test",
      "repoBuildType": "AUTO_BUILD",
      "repoType": "PUBLIC",
      "repoDomainList": {
        "public": "registry.cn-hangzhou.aliyuncs.com",
        "vpc": "registry-vpc.cn-hangzhou.aliyuncs.com"
      },
      "regionId": "cn-hangzhou",
      "repoStatus": "NORMAL",
      "detail": "",
      "repoAuthorizeType": "ADMIN"
    }
  },
  "requestId": "B21BE190-08BA-41B6-B8B5-CA4029F1CC58"
}
```

2.3.6. GetRepoList

Queries information about repositories.

Request information

Request line

```
GET /repos HTTP/1.1
```

Request line parameters

Parameter	Type	Required	Description
Status	String	Yes	The status of the repository.
RepoNamePrefix	String	Yes	The prefix of the repository name.
Page	Integer	No	The number of the page to return.
PageSize	Integer	No	The number of entries to return on each page.

Operation-specific request headers

None.

Request body

None.

Response information

Response line

```
HTTP/1.1 200 OK
```

Operation-specific response headers

None.

Response body

```
{
  "data": {
    "total": Integer,
    "repos": [{
      "summary": String,
      "repoId": Long,
      "gmtCreate": Long,
      "gmtModified": Long,
      "repoNamespace": String,
      "repoName": String,
      "repoBuildType": String,
      "repoType": String,
      "repoDomainList": {
        "public": String,
        "vpc": String
      },
      "regionId": String,
      "repoStatus": String,
      "repoAuthorizeType": String
    }, {
      "summary": String,
      "repoId": Long,
      "gmtCreate": Long,
      "gmtModified": Long,
      "repoNamespace": String,
      "repoName": String,
      "repoBuildType": String,
      "repoType": String,
      "repoDomainList": {
        "public": String,
        "vpc": String
      },
      "regionId": String,
      "repoStatus": String,
      "repoAuthorizeType": String
    }],
    "pageSize": Integer,
    "page": Integer
  },
  "requestId": String
}
```

Response body parameters

Parameter	Type	Description
summary	String	The summary of the repository.
repold	Long	The unique ID of the repository.
gmtCreate	Long	The time when the repository was created.

Parameter	Type	Description
gmtModified	Long	The time when the repository was last modified.
repoNamespace	String	The name of the namespace to which the repository belongs.
repoName	String	The name of the repository.
repoBuildType	String	Indicates how the repository was created.
repoType	String	The type of the repository.
repoDomainList	Array	The domain names of the repository.
regionId	String	The ID of the region.
repoStatus	String	The status of the repository.
repoAuthorizeType	String	The permission type of the repository.
page	Integer	The page number of the returned page.
pageSize	Integer	The number of entries returned per page.
total	Integer	The total number of entries.

Examples

Sample requests

```
GET /repos HTTP/1.1
<Common request headers>
```

Sample success responses

```
HTTP/1.1 200 OK
<Common response headers>
{
  "data": {
    "total": 2,
    "repos": [{
      "summary": "Test1",
      "repoId": 00001,
      "gmtModified": 1524663871000,
      "repoNamespace": "test1",
      "repoName": "test_repo_1",
      "gmtCreate": 1524663834000,
      "repoBuildType": "AUTO_BUILD",
      "repoType": "PUBLIC",
      "repoDomainList": {
        "public": "registry.cn-hangzhou.aliyuncs.com",
        "vpc": "registry-vpc.cn-hangzhou.aliyuncs.com"
      },
      "regionId": "cn-hangzhou",
      "repoStatus": "NORMAL",
      "repoAuthorizeType": "ADMIN"
    }, {
      "summary": "Test2",
      "repoId": 00002,
      "gmtModified": 1487319003000,
      "repoNamespace": "test2",
      "repoName": "Test2",
      "gmtCreate": 1487319003000,
      "repoBuildType": "AUTO_BUILD",
      "repoType": "PRIVATE",
      "repoDomainList": {
        "public": "registry.cn-hangzhou.aliyuncs.com",
        "vpc": "registry-vpc.cn-hangzhou.aliyuncs.com"
      },
      "regionId": "cn-hangzhou",
      "repoStatus": "NORMAL",
      "repoAuthorizeType": "ADMIN"
    }
  ],
  "pageSize": 20,
  "page": 1
},
"requestId": "F11E3C4C-L09Q-4D11-B7C5-5EFCA8E7CA2E"
}
```

2.3.7. GetRepoListByNamespace

Queries information about repositories.

Request information

Request line

```
GET /repos/[RepoNamespace] HTTP/1.1
```

Request line parameters

Parameter	Type	Required	Description
Status	String	Yes	The status of the repository.
RepoNamespace	String	Yes	The namespace to which the repository belongs.
RepoNamePrefix	String	Yes	The prefix of the repository name.
Page	Integer	No	The number of the page to return.
PageSize	Integer	No	The number of entries to return on each page.

Operation-specific request headers

None.

Request body

None.

Response information

Response line

```
HTTP/1.1 200 OK
```

Operation-specific response headers

None.

Response body

```
{
  "data": {
    "total": Integer,
    "repos": [{
      "summary": String,
      "repoId": Long,
      "gmtCreate": Long,
      "gmtModified": Long,
      "repoNamespace": String,
      "repoName": String,
      "repoBuildType": String,
      "repoType": String,
      "repoDomainList": {
        "public": String,
        "vpc": String
      },
      "regionId": String,
      "repoStatus": String,
      "repoAuthorizeType": String
    }, {
      "summary": String,
      "repoId": Long,
      "gmtCreate": Long,
      "gmtModified": Long,
      "repoNamespace": String,
      "repoName": String,
      "repoBuildType": String,
      "repoType": String,
      "repoDomainList": {
        "public": String,
        "vpc": String
      },
      "regionId": String,
      "repoStatus": String,
      "repoAuthorizeType": String
    }],
    "pageSize": Integer,
    "page": Integer
  },
  "requestId": "F11E3C4C-L09Q-4D11-B7C5-5EFCA8E7CA2E"
}
```

Response body parameters

Parameter	Type	Description
summary	String	The summary of the repository.
repold	Long	The unique ID of the repository.
gmtCreate	Long	The time when the repository was created.

Parameter	Type	Description
gmtModified	Long	The time when the repository was last modified.
repoNamespace	String	The name of the namespace to which the repository belongs.
repoName	String	The name of the repository.
repoBuildType	String	Indicates how the repository was created.
repoType	String	The type of the repository.
repoDomainList	Array	The domain names of the repository.
downloads	Long	The number of image downloads from the repository.
regionId	String	The ID of the region.
logo	String	The icon of the repository.
repoStatus	String	The status of the repository.
repoAuthorizeType	String	The permission type of the repository.
Page	Integer	The page number of the returned page.
PageSize	Integer	The number of entries returned per page.
total	Integer	The total number of entries.

Examples

Sample requests

```
GET /repos/[RepoNamespace] HTTP/1.1
<Common request headers>
```

Sample responses

```
HTTP/1.1 200 OK
<Common response headers>
{
  "data": {
    "total": 2,
    "repos": [{
      "summary": "Test1",
      "repoId": 00001,
      "gmtModified": 1524663871000,
      "repoNamespace": "test",
      "repoName": "test_repo_1",
      "gmtCreate": 1524663834000,
      "repoBuildType": "AUTO_BUILD",
      "repoType": "PUBLIC",
      "repoDomainList": {
        "public": "registry.cn-hangzhou.aliyuncs.com",
        "vpc": "registry-vpc.cn-hangzhou.aliyuncs.com"
      },
      "regionId": "cn-hangzhou",
      "repoStatus": "NORMAL",
      "repoAuthorizeType": "ADMIN"
    }, {
      "summary": "Test2",
      "repoId": 00002,
      "gmtModified": 1487319003000,
      "repoNamespace": "test",
      "repoName": "test_repo_2",
      "gmtCreate": 1487319003000,
      "repoBuildType": "AUTO_BUILD",
      "repoType": "PRIVATE",
      "repoDomainList": {
        "public": "registry.cn-hangzhou.aliyuncs.com",
        "vpc": "registry-vpc.cn-hangzhou.aliyuncs.com"
      },
      "regionId": "cn-hangzhou",
      "repoStatus": "NORMAL",
      "repoAuthorizeType": "ADMIN"
    }
  ],
  "pageSize": 20,
  "page": 1
},
"requestId": "F11E3C4C-L09Q-4D11-B7C5-5EFCA8E7CA2E"
}
```

2.3.8. GetRepoTags

Queries the information about images in a repository.

Request information

Request line


```
GET /repos/[RepoNamespace]/[RepoName]/tags HTTP/1.1
```

Request line parameters

Parameter	Type	Required	Description
RepoNamespace	String	Yes	The name of the namespace to which the repository belongs.
RepoName	String	Yes	The name of the repository.
Page	Integer	No	The number of the page to return.
PageSize	Integer	No	The number of entries to return on each page.

Operation-specific request headers

None.

Request body

None.

Response information

Response line

```
HTTP/1.1 200 OK
```

Operation-specific response headers

None.

Response body

```
{
  "data": {
    "total": Integer,
    "pageSize": Integer,
    "page": Integer,
    "tags": [{
      "imageUpdate": Long,
      "imageCreate": Long,
      "imageId": String,
      "digest": String,
      "imageSize": Long,
      "tag": String,
      "status": String
    }, {
      "imageUpdate": Long,
      "imageCreate": Long,
      "imageId": String,
      "digest": String,
      "imageSize": Long,
      "tag": String,
      "status": String
    }]
  },
  "requestId": "9AFB10K1-2301-4B00-A817-932492040126"
}
```

Response body parameters

Parameter	Type	Description
imageUpdate	Long	The time when the image was last updated.
imageCreate	Long	The time when the image was created.
imageId	String	The ID of the image.
digest	String	The SHA-256 hash function of the image.
imageSize	Long	The size of the image.
tag	String	The tag of the image.
status	String	The status of the image.
page	Integer	The page number of the returned page.
pageSize	Integer	The number of entries returned per page.

Parameter	Type	Description
total	Integer	The total number of entries.

Examples

Sample requests

```
GET /repos/[RepoNamespace]/[RepoName]/tags HTTP/1.1
<Common request headers>
```

Sample success responses

```
HTTP/1.1 200 OK
<Common response headers>
{
  "total": 2,
  "pageSize": 30,
  "page": 1,
  "tags": [{
    "imageUpdate": 1514432549000,
    "imageId": "2842876c9b98f8c7607c1123ks18ff040b76a1d932c6d60c96aa3c283bd221cd",
    "digest": "83414d2c3b04e01o1q7693e31aeca95b82c61949ea8de858579bf16bd92490c6",
    "imageSize": 715764,
    "tag": "new",
    "imageCreate": 1514432549000,
    "status": "NORMAL"
  }, {
    "imageUpdate": 1514372113000,
    "imageId": "414e6daa772a8cd5dfloqpe503e6e313c372d2e15958ab649709daf9b1065479",
    "digest": "fcf39ed78ef0fa27bcc74713b85259alop1b12e6a201e3083af50fd8eda1cbe1",
    "imageSize": 715653,
    "tag": "asdf",
    "imageCreate": 1514372044000,
    "status": "NORMAL"
  }]
},
"requestId": "9AFB52D3-6631-4B00-A857-932492097726"
}
```

2.4. Image management

2.4.1. DeleteImage

Deletes an image tag. After an image tag is deleted, it cannot be recovered.

Request information

Request line

```
DELETE /repos/[RepoNamespace]/[RepoName]/tags/[Tag] HTTP/1.1
```

Request line parameters

Parameter	Type	Required	Description
RepoNamespace	String	Yes	The name of the namespace.
RepoName	String	Yes	The name of the repository.
Tag	String	Yes	The tag of the image.

Operation-specific request headers

None.

Request body

None.

Request body parameters

None.

Response information

Response line

```
HTTP/1.1 200 OK
```

Operation-specific response headers

None.

Response body

```
{
  "data": {},
  "requestId": "string"
}
```

Examples

Sample requests

```
DELETE /repos/[RepoNamespace]/[RepoName]/tags/[Tag] HTTP/1.1
<Common request headers>
```

Sample success responses

```
HTTP/1.1 200 OK
<Common response headers>
{
  "data": {},
  "requestId": "7BF6D761-E7F8-454C-A235-983E5D183B4E"
}
```

2.4.2. GetImageManifest

Queries the manifest information about an image.

Request information

Request line

```
GET /repos/[RepoNamespace]/[RepoName]/tags/[Tag]/manifest HTTP/1.1
```

Request line parameters

Parameter	Type	Required	Description
RepoNamespace	String	Yes	The name of the namespace.
RepoName	String	Yes	The name of the repository.
Tag	String	Yes	The tag of the image.

Operation-specific request headers

None.

Request body

None.

Request body parameters

None.

Response information

Response line

```
HTTP/1.1 200 OK
```

Operation-specific response headers

None.

Response body

```
{
  "data": {
    "manifest": {
      "name": "String",
      "fsLayers": "Array",
      "history": "Array",
      "signatures": "Array",
      "architecture": "String",
      "tag": "String",
      "schemaVersion": "Integer"
    }
  },
  "requestId": "String"
}
```

Response body parameters

Parameter	Type	Description
name	String	The name of the image, namespace, or repository.
fsLayers	String	The SHA-256 hash function of each layer of the image.
history	Array	Unstructured historical data that complies with schema v1.
signatures	Array	The signature of the image.
architecture	String	The architecture of the image.
tag	String	The tag of the image.
schemaVersion	Integer	The schema version. A value of 1 indicates manifest v2 and schema 1. A value of 2 indicates manifest v2 and schema 2.

Examples

Sample requests

```
GET /repos/[RepoNamespace]/[RepoName]/tags/[Tag]/manifest HTTP/1.1
<Common request headers>
```

Sample success responses

```
HTTP/1.1 200 OK
<Common response headers>
{
  "data": {
    "manifest": {
      "name": "testNamespace/testRepo",
      "fsLayers": [{
        "blobSum": "sha256:a"
      }],
      "history": [{
        "v1Compatibility": {
          "parent": "b",
          "os": "linux",
          "created": "2018-01-01T00:00:00.000000001Z",
          "container_config": {},
          "id": "c",
          "config": {},
          "docker_version": "17.12.0-ce",
          "architecture": "amd64"
        }
      }],
      "signatures": [{
        "signature": "e",
        "header": {
          "alg": "ES256",
          "jwk": {}
        },
        "protected": "f"
      }],
      "architecture": "amd64",
      "tag": "tag1",
      "schemaVersion": 1
    }
  },
  "requestId": "8DBD3292-A232-44F6-93DC-B30D70AF54E9"
}
```

2.4.3. GetImageLayer

Queries the layer information about an image.

Request information

Request line

```
GET /repos/[RepoNamespace]/[RepoName]/tags/[Tag]/layers HTTP/1.1
```

Request line parameters

Parameter	Type	Required	Description
RepoNamespace	String	Yes	The name of the namespace.
RepoName	String	Yes	The name of the repository.
Tag	String	Yes	The tag of the image.

Operation-specific request headers

None.

Request body

None.

Request body parameters

None.

Response information

Response line

```
HTTP/1.1 200 OK
```

Operation-specific response headers

None.

Response body

```
{
  "data": {
    "image": {
      "repoNamespace": "String",
      "repoName": "String",
      "layers": "Array",
      "tag": "String",
      "region": "String"
    }
  },
  "requestId": "String"
}
```

Response body parameters

Parameter	Type	Description
repoNamespace	String	The name of the namespace.
repoName	String	The name of the image repository.

Parameter	Type	Description
layers	Array	The layer information of the image.
tag	String	The tag of the image.
region	String	The region where the image repository is deployed.

Examples

Sample requests

```
GET /repos/[RepoNamespace]/[RepoName]/tags/[Tag]/layers HTTP/1.1
<Common request headers>
```

Sample success responses

```
HTTP/1.1 200 OK
<Common response headers>
{
  "data": {
    "image": {
      "repoNamespace": "testNamespace",
      "repoName": "testRepo",
      "layers": [{
        "layerCMD": "file:a in /TEMP",
        "blobDigest": "sha256:b",
        "blobSize": 1000,
        "layerInstruction": "COPY",
        "layerIndex": 2
      }, {
        "layerCMD": "[\"bash\"]",
        "blobDigest": "sha256:c",
        "blobSize": 32,
        "layerInstruction": "CMD",
        "layerIndex": 1
      }, {
        "layerCMD": "file:e in /",
        "blobDigest": "sha256:f",
        "blobSize": 52608285,
        "layerInstruction": "ADD",
        "layerIndex": 0
      }],
      "tag": "latest",
      "region": "cn-hangzhou"
    }
  },
  "requestId": "8DBD3292-A232-44F6-93DC-B30D70AF54E9"
}
```

2.5. Trigger management

2.5.1. CreateRepoWebhook

Creates a trigger for an image repository.

Request information

Request line

```
PUT /repos/[RepoNamespace]/[RepoName]/webhooks HTTP/1.1
```

Request line parameters

Parameter	Type	Required	Description
RepoNamespace	String	Yes	The namespace to which the repository belongs.
RepoName	String	Yes	The name of the repository.

Operation-specific request headers

None.

Request body

```
Request Body:
{
  "Webhook": {
    "WebhookName": "String" This parameter is required.
    "WebhookUrl": "String" This parameter is required.
    "TriggerType": "String" This parameter is required. Valid values: ALL, TAG_REG_EXP,
and TAG_LIST.
  }
}
```

Request body parameters

Parameter	Type	Required	Description
WebhookName	String	Yes	The name of the trigger.
WebhookUrl	String	Yes	The URL of the trigger when an image is pushed to the repository.

Parameter	Type	Required	Description
TriggerType	String	Yes	The type of trigger. Valid values: ALL, TAG_REG_EXP, and TAG_LIST. The trigger type determines that the trigger is invoked by the tag (TAG_LIST), regular expression (TAG_REG_EXP), or both (ALL), of the image that is pushed to the repository.

Response information

Response line

```
HTTP/1.1 200 OK
```

Operation-specific response headers

None.

Response body

```
{
  "data": {
    "webhookId": "String"
  },
  "requestId": "String"
}
```

Examples

Sample requests

```
PUT /repos/[RepoNamespace]/[RepoName]/webhooks HTTP/1.1
<Common request headers>
{
  "Webhook": {
    "WebhookName": "MyTrigger",
    "WebhookUrl": "https://www.***.com",
    "TriggerType": "ALL"
  }
}
```

Sample success responses

```
HTTP/1.1 200 OK
<Common response headers>
{
  "data": {
    "webhookId": "39762"
  },
  "requestId": "3666F8EA-1468-4BEA-883B-FC60A651A609"
}
```

2.5.2. DeleteRepoWebhook

Deletes a trigger of a repository.

Request information

Request line

```
DELETE /repos/[RepoNamespace]/[RepoName]/webhooks/[WebhookId] HTTP/1.1
```

Request line parameters

Parameter	Type	Required	Description
RepoNamespace	String	Yes	The namespace to which the repository belongs. You must select a created namespace.
RepoName	String	Yes	The name of the image repository.
WebhookId	Long	Yes	The ID of the trigger.

Operation-specific request headers

None.

Request body

None.

Request body parameters

None.

Response information

Response line

```
HTTP/1.1 200 OK
```

Operation-specific response headers

None.

Response body

```
{
  "data": {},
  "requestId": "String"
}
```

Examples

Sample requests

```
DELETE /repos/[RepoNamespace]/[RepoName]/webhooks/[WebhookId] HTTP/1.1
<Common request headers>
```

Sample success responses

```
HTTP/1.1 200 OK
<Common response headers>
{
  "data": {},
  "requestId": "639F1195-56D9-49B7-BC47-B3BFCC9ED1C9"
}
```

2.5.3. GetRepoWebhook

Queries triggers for an image repository.

Request information

Request line

```
GET /repos/[RepoNamespace]/[RepoName]/webhooks HTTP/1.1
```

Request line parameters

Parameter	Type	Required	Description
RepoNamespace	String	Yes	The name of the namespace to which the repository belongs.
RepoName	String	Yes	The name of the repository.

Operation-specific request headers

None.

Request body

None.

Response information

Response line

```
HTTP/1.1 200 OK
```

Operation-specific response headers

None.

Response body

```
{
  "data": {
    "webhooks": [
      {
        "webhookId": Long,
        "triggerTag": String,
        "webhookName": String,
        "triggerType": String,
        "webhookUrl": String
      }
    ]
  },
  "requestId": String
}
```

Response body parameters

Parameter	Type	Description
webhookId	Long	The ID of the webhook.
triggerTag	String	The trigger that is invoked by tags.
webhookName	String	The name of the webhook.
triggerType	String	The trigger mode
webhookUrl	String	The URL of the trigger.
syncTaskId	String	The ID of the synchronization task.
RequestId	String	The unique ID of the request.

Examples

Sample requests

```
GET /repos/[RepoNamespace]/[RepoName]/webhooks HTTP/1.1
<Common request headers>
```

Sample success responses

```
HTTP/1.1 200 OK
<Common response headers>
{
  "data": {
    "webhooks": [
      {
        "webhookId": 39726,
        "triggerTag": "",
        "webhookName": "justForTest",
        "triggerType": "ALL",
        "webhookUrl": "https://www.***.com"
      }
    ]
  },
  "requestId": "A86AB63A-758B-4FD9-9CB1-1421083A2EF5"
}
```

2.5.4. UpdateRepoWebhook

Updates a trigger for an image repository.

Request information

Request line

```
POST /repos/[RepoNamespace]/[RepoName]/webhooks/[WebhookId] HTTP/1.1
```

Request line parameters

Parameter	Type	Required	Description
RepoNamespace	String	Yes	The name of the namespace to which the repository belongs.
RepoName	String	Yes	The name of the repository.
WebhookId	String	Yes	The ID of the trigger.

Operation-specific request headers

None.

Request body

```
{
  "Webhook": {
    "WebhookName": "String",
    "WebhookUrl": "String",
    "TriggerName": "String",
    "TriggerUrl": "String",
    "TriggerType": "String"
  }
}
```

Request body parameters

Parameter	Type	Required	Description
WebhookName	String	Yes	The name of the trigger. The name must be 2 to 30 characters in length, and can contain lowercase letters, digits, and underscores (_). It cannot start with an underscore (_).
WebhookUrl	String	Yes	The URL of the trigger. The URL must be 1 to 1,024 characters in length, and can contain lowercase letters, digits, hyphens (-), and underscores (_). It cannot start with a hyphen (-) or an underscore (_).

Response information

Response line

```
HTTP/1.1 200 OK
```

Operation-specific response headers

None.

Response body

```
{
  "data": {
  },
  "requestId": "String"
}
```

Response body parameters

None.

Examples

Sample requests

```
POST /repos/[RepoNamespace]/[RepoName]/webhooks/[WebhookId] HTTP/1.1
<Common request headers>
{
  "Webhook": {
    "WebhookName": "justForTest",
    "WebhookUrl": "https://www.****.com",
    "TriggerName": "justForTest",
    "TriggerUrl": "https://www.****.com",
    "TriggerType": "ALL"
  }
}
```

Sample success responses

```
HTTP/1.1 200 OK
<Common response headers>
{
  "data": {
  },
  "requestId": "8DBD3292-A232-44F6-93DC-B30D70AF54E9"
}
```

2.6. Access credential management

2.6.1. GetAuthorizationToken

Returns the temporary account and token that you use to log on to the registry. The token is valid for 1 hour. If you send a Security Token Service (STS) request, the token is valid within the request period of the STS token.

Permissions

Invocation method	Permissions
Apsara Stack tenant account	Logon to the registry with the token and logon to the registry with the username and password of the Apsara Stack tenant account allow you to have the same permissions.
RAM user	Logon to the registry with the token and logon to the registry with the username and password of the RAM user allow you to have the same permissions.

Invocation method	Permissions
STS	If you log on to the registry with the token, the permissions of your account are determined by the permission policies attached to the role.

Request information

Request line

```
Get /tokens HTTP/1.1
```

Request line parameters

None.

Operation-specific request headers

None.

Request body

None.

Response information

Response line

```
HTTP/1.1 200 OK
```

Operation-specific response headers

None.

Response body

```
{
  "data": {
    "authorizationToken": "String",
    "tempUserName": "String",
    "expireDate": Long
  },
  "requestId": "String"
}
```

Response body parameters

Parameter	Type	Description
authorizationToken	String	The token that you use to log on to the registry.
tempUserName	String	The username that you use to log on to the registry.

Parameter	Type	Description
expireDate	Long	The timestamp when the token expires. Unit: milliseconds.

Examples

Sample requests

```
Get /tokens HTTP/1.1
<Common request headers>
```

Sample success responses

```
HTTP/1.1 200 OK
<Common response headers>
{
  "data": {
    "authorizationToken": "eyJ0aW1lIjoimTUyNjU0OTc5:0705733****",
    "tempUserName": "cr_temp_user",
    "expireDate": 1526549792000
  },
  "requestId": "94E89857-B994-44B6-9C4F-DBD200E9E272"
}
```

3. API references for Container Registry Advanced Edition

3.1. Namespace management

3.1.1. CreateNamespace

Creates a namespace.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateNamespace	The operation that you want to perform. Set the value to CreateNamespace .
RegionId	String	Yes	cn-wl-env****	The region ID of the namespace.
InstanceId	String	Yes	cri-pri****	The ID of the Container Registry Enterprise Edition instance.
NamespaceName	String	Yes	namespace1	The name of the namespace.
AutoCreateRepo	Boolean	No	true	Specifies whether to automatically create an image repository.
DefaultRepoType	String	No	PUBLIC	The default type of the repository that is automatically created. Valid values: - PUBLIC - PRIVATE

Response parameters

Parameter	Type	Example	Description
Code	String	success	The return value.
IsSuccess	Boolean	true	Indicates whether the API call is successful.

Parameter	Type	Example	Description
RequestId	String	BC648259-91A7-4502-BED3-EDF64361FA83	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateNamespace
&InstanceId=cri-pri****
&NamespaceName=namespace1
&RegionId=cn-wl-env****
&<Common request parameters>
```

Sample success responses

XML format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<IsSuccess>true</IsSuccess>
<RequestId>BC648259-91A7-4502-BED3-EDF64361FA83</RequestId>
<Code>success</Code>
```

JSON format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "IsSuccess" : true,
  "RequestId" : "BC648259-91A7-4502-BED3-EDF64361FA83",
  "Code" : "success"
}
```

3.1.2. DeleteNamespace

Deletes a namespace.

 **Note** After you delete a namespace, all repositories in the namespace and all images in these repositories are deleted as well.

Request parameters

Parameter	Type	Required	Example	Description
-----------	------	----------	---------	-------------

Parameter	Type	Required	Example	Description
Action	String	Yes	DeleteNamespace	The operation that you want to perform. Set the value to DeleteNamespace.
InstanceId	String	Yes	cri-pri****	The ID of the Container Registry Enterprise Edition instance.
NamespaceName	String	Yes	ns3	The name of the namespace.
RegionId	String	Yes	cn-wl-en****	The region ID of the namespace.

Response parameters

Parameter	Type	Example	Description
Code	String	success	The return value.
IsSuccess	Boolean	true	Indicates whether the API call is successful. Valid values: <code>true</code> : The request is successful. <code>false</code> : The request fails.
RequestId	String	BA08C185-8F76-48D7-ACB3-BA11BF2778F9	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DeleteNamespace
&InstanceId=cri-pri****
&NamespaceName=ns3
&RegionId=cn-wl-en****
&<Common request parameters>
```

Sample success responses

XML format

```
<IsSuccess>true</IsSuccess>
<RequestId>BA08C185-8F76-48D7-ACB3-BA11BF2778F9</RequestId>
<Code>success</Code>
```

JSON format

```
{
  "IsSuccess":true,
  "RequestId":"BA08C185-8F76-48D7-ACB3-BA11BF2778F9",
  "Code":"success"
}
```

3.1.3. UpdateNamespace

Updates a namespace.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	UpdateNamespace	The operation that you want to perform. Set the value to UpdateNamespace.
InstanceId	String	Yes	cri-pri****	The ID of the Container Registry Enterprise Edition instance.
NamespaceName	String	Yes	test	The name of the namespace.
RegionId	String	Yes	cn-wl-en****	The region ID of the namespace.
AutoCreateRepo	Boolean	No	true	Specifies whether to automatically create a repository when an image is pushed to the namespace.
DefaultRepoType	String	No	PRIVATE	The default type of the repository. Valid values: <code>PUBLIC</code> : The repository is a public repository. <code>PRIVATE</code> : The repository is a private repository.

Response parameters

Parameter	Type	Example	Description
Code	String	success	The return value.

Parameter	Type	Example	Description
IsSuccess	Boolean	true	Indicates whether the API call is successful. Valid values: <code>true</code> : The request is successful. <code>false</code> : The request fails.
RequestId	String	90B8475C-C066-4B92-946E-4D0DECB514E8	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=UpdateNamespace
&InstanceId=cri-pri****
&NamespaceName=test
&RegionId=cn-wl-en****
&<Common request parameters>
```

Sample success responses

XML format

```
<IsSuccess>true</IsSuccess>
<RequestId>90B8475C-C066-4B92-946E-4D0DECB514E8</RequestId>
<Code>success</Code>
```

JSON format

```
{
  "IsSuccess":true,
  "RequestId":"90B8475C-C066-4B92-946E-4D0DECB514E8",
  "Code":"success"
}
```

3.1.4. GetNamespace

Queries details about a namespace.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	GetNamespace	The operation that you want to perform. Set the value to GetNamespace.

Parameter	Type	Required	Example	Description
InstanceId	String	Yes	cri-pri****	The ID of the Container Registry Enterprise Edition instance.
NamespaceName	String	No	test	The name of the namespace.
RegionId	String	Yes	cn-wl-en****	The region ID of the namespace.
NamespaceId	String	No	crn-tiw8t3f8i5lt****	The ID of the namespace.

Response parameters

Parameter	Type	Example	Description
AutoCreateRepo	Boolean	true	Indicates whether a repository is automatically created when an image is pushed to the namespace.
Code	String	success	The return value.
DefaultRepoType	String	PUBLIC	The default type of the repository. Valid values: - PUBLIC: The repository is a public repository. - PRIVATE: The repository is a private repository.
InstanceId	String	cri-pri****	The ID of the Container Registry Enterprise Edition instance.
IsSuccess	Boolean	true	Indicates whether the API call is successful. Valid values: - true: The request is successful. - false: The request fails.
NamespaceId	String	crn-tiw8t3f8i5lt****	The ID of the namespace.
NamespaceName	String	test	The name of the namespace.

Parameter	Type	Example	Description
NamespaceStatus	String	NORMAL	The status of the namespace.
RequestId	String	E4BC9E21-8AA5-4582-83C1-C1209AB8196F	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=GetNamespace
&InstanceId=cri-pri****
&NamespaceName=test
&RegionId=cn-wl-en****
&<Common request parameters>
```

Sample success responses

XML format

```
<AutoCreateRepo>true</AutoCreateRepo>
<Code>success</Code>
<DefaultRepoType>PUBLIC</DefaultRepoType>
<InstanceId>cri-pri****</InstanceId>
<IsSuccess>true</IsSuccess>
<NamespaceName>test</NamespaceName>
<NamespaceId>crn-tiw8t3f8i5lta4uv</NamespaceId>
<NamespaceStatus>NORMAL</NamespaceStatus>
<RequestId>E4BC9E21-8AA5-4582-83C1-C1209AB8196F</RequestId>
```

JSON format

```
{
  "AutoCreateRepo": "true",
  "Code": "success",
  "DefaultRepoType": "PUBLIC",
  "InstanceId": "cri-pri****",
  "IsSuccess": "true",
  "NamespaceName": "test",
  "NamespaceId": "crn-tiw8t3f8i5lta4uv",
  "NamespaceStatus": "NORMAL",
  "RequestId": "E4BC9E21-8AA5-4582-83C1-C1209AB8196F"
}
```

Error codes

访问[错误中心](#)查看更多错误码。

For a list of error codes, visit the [API Error Center](#).

3.1.5. ListNamespace

Queries the namespaces.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ListNamespace	The operation that you want to perform. Set the value to ListNamespace.
InstanceId	String	Yes	cri-pri****	The ID of the Container Registry Enterprise Edition instance.
RegionId	String	Yes	cn-wl-en****	The region ID of the namespace.
NamespaceStatus	String	No	NORMAL	The status of the namespace. Valid values: <code>NORMAL</code> : The namespace is normal. <code>DELETING</code> : The namespace is being deleted.
NamespaceName	String	No	test-namespace	The name of the namespace.
PageNo	Integer	No	1	The number of the page to return.
PageSize	Integer	No	30	The number of entries to return on each page.

Response parameters

Parameter	Type	Example	Description
Code	String	success	The return value.
IsSuccess	Boolean	true	Indicates whether the API call is successful. Valid values: <code>true</code> : The request is successful. <code>false</code> : The request fails.

Parameter	Type	Example	Description
Namespaces	Array of Namespaces		The information about namespaces.
AutoCreateRepo	Boolean	true	Indicates whether a repository is automatically created when an image is pushed to the namespace.
DefaultRepoType	String	PUBLIC	The default type of the repository. Valid values: <code>PUBLIC</code> : The repository is a public repository. <code>PRIVATE</code> : The repository is a private repository.
InstanceId	String	cri-pri****	The ID of the Container Registry Enterprise Edition instance.
NamespaceId	String	crn-tiw8t3f8i5lt****	The ID of the namespace.
NamespaceName	String	test	The names of the queried namespaces.
NamespaceStatus	String	NORMAL	The status of the namespace. Valid values: <code>NORMAL</code> : The namespace is normal. <code>DELETING</code> : The namespace is being deleted.
PageNo	Integer	1	The page number of the returned page.
PageSize	Integer	30	The number of entries returned per page.
RequestId	String	B7E5FCA5-55ED-451C-9649-0BB2B93387D0	The ID of the request.
TotalCount	String	1	The total number of returned entries.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListNamespace
&InstanceId=cri-pri****
&RegionId=cn-wl-en****
&<Common request parameters>
```

Sample success responses

XML format

```
<IsSuccess>true</IsSuccess>
<Namespaces>
  <NamespaceStatus>NORMAL</NamespaceStatus>
  <NamespaceName>test</NamespaceName>
  <DefaultRepoType>PUBLIC</DefaultRepoType>
  <InstanceId>cri-pri****</InstanceId>
  <AutoCreateRepo>true</AutoCreateRepo>
  <NamespaceId>crn-tiw8t3f8i5lt****</NamespaceId>
</Namespaces>
<TotalCount>1</TotalCount>
<PageSize>30</PageSize>
<RequestId>B7E5FCA5-55ED-451C-9649-0BB2B93387D0</RequestId>
<PageNo>1</PageNo>
<Code>success</Code>
```

JSON format

```
{
  "IsSuccess": true,
  "Namespaces": {
    "NamespaceStatus": "NORMAL",
    "NamespaceName": "test",
    "DefaultRepoType": "PUBLIC",
    "InstanceId": "cri-pri****",
    "AutoCreateRepo": true,
    "NamespaceId": "crn-tiw8t3f8i5lt****"
  },
  "TotalCount": 1,
  "PageSize": 30,
  "RequestId": "B7E5FCA5-55ED-451C-9649-0BB2B93387D0",
  "PageNo": 1,
  "Code": "success"
}
```

3.2. Image repository management

3.2.1. CreateRepository

Creates an image repository.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateRepository	The operation that you want to perform. Set the value to CreateRepository.
InstanceId	String	Yes	cri-pri****	The ID of the Container Registry Enterprise Edition instance.
RegionId	String	Yes	cn-wl-en****	The region ID of the namespace.
RepoName	String	Yes	repo1	The name of the image repository.
RepoNamespace Name	String	Yes	namespace01	The name of the namespace to which the image repository belongs.
RepoType	String	Yes	PRIVATE	The type of the repository. Valid values: <code>PUBLIC</code> : The repository is a public repository. <code>PRIVATE</code> : The repository is a private repository.
Summary	String	Yes	repo1	The summary of the repository.
Detail	String	No	repo1	The description of the repository.
TagImmutability	Boolean	No	true	Specifies whether to enable the feature of image tag immutability. Valid values: <code>true</code> : enables the feature of image tag immutability. <code>false</code> : disables the feature of image tag immutability.

Response parameters

Parameter	Type	Example	Description
Code	String	success	The return value.

Parameter	Type	Example	Description
IsSuccess	Boolean	true	Indicates whether the API call is successful. Valid values: <code>true</code> : The request is successful. <code>false</code> : The request fails.
RepoId	String	crr-xwvi3osiy4ff****	The ID of the image repository.
RequestId	String	886FB272-15C3-44FC-AA54-F4ABD5B93A28	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateRepository
&InstanceId=cri-pri****
&RegionId=cn-wl-en****
&RepoName=repo1
&RepoNamespaceName=namespace01
&RepoType=PRIVATE
&Summary=repo1
&<Common request parameters>
```

Sample success responses

XML format

```
<IsSuccess>true</IsSuccess>
<RequestId>886FB272-15C3-44FC-AA54-F4ABD5B93A28</RequestId>
<RepoId>crr-xwvi3osiy4ff****</RepoId>
<Code>success</Code>
```

JSON format

```
{
  "IsSuccess": true,
  "RequestId": "886FB272-15C3-44FC-AA54-F4ABD5B93A28",
  "RepoId": "crr-xwvi3osiy4ff****",
  "Code": "success"
}
```

3.2.2. DeleteRepository

Deletes an image repository.



Notice If you delete a repository, all images in the repository are deleted as well.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DeleteRepository	The operation that you want to perform. Set the value to DeleteRepository.
InstanceId	String	Yes	cri-pri****	The ID of the Container Registry Enterprise Edition instance.
RegionId	String	Yes	cn-wl-en****	The region ID of the instance.
RepoId	String	Yes	crr- l4933wbcmun2** **	The ID of the image repository.

Response parameters

Parameter	Type	Example	Description
Code	String	success	The return value.
IsSuccess	Boolean	true	Indicates whether the API call is successful. Valid values: <code>true</code> : The request is successful. <code>false</code> : The request fails.
RequestId	String	47DD9D56-09A0- 4C52-B520- C3805DBAB96B	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DeleteRepository
&InstanceId=cn-wl-en****
&RegionId=cri-pri****
&RepoId=crr-l4933wbcmun2****
&<Common request parameters>
```

Sample success responses

`XML` format


```
<IsSuccess>true</IsSuccess>
<RequestId>47DD9D56-09A0-4C52-B520-C3805DBAB96B</RequestId>
<Code>success</Code>
```

JSON format

```
{
  "IsSuccess": true,
  "RequestId": "47DD9D56-09A0-4C52-B520-C3805DBAB96B",
  "Code": "success"
}
```

3.2.3. UpdateRepository

Updates an image repository.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	UpdateRepository	The operation that you want to perform. Set the value to UpdateRepository .
RegionId	String	Yes	cn-wl-en****	The region ID of the repository.
InstanceId	String	Yes	cri-pri****	The ID of the Container Registry Enterprise Edition instance.
RepoId	String	Yes	crr-tquyps22md8p**	The ID of the image repository.
RepoType	String	Yes	PUBLIC	The type of the repository. Valid values: PUBLIC : The repository is a public repository. PRIVATE : The repository is a private repository.
Summary	String	Yes	test repo	The summary of the repository.
Detail	String	No	repo-for-test	The description of the repository.

Parameter	Type	Required	Example	Description
TagImmutability	Boolean	No	true	Specifies whether to enable the feature of image tag immutability. Valid values: <code>true</code> : enables the feature of image tag immutability. <code>false</code> : disables the feature of image tag immutability.

Response parameters

Parameter	Type	Example	Description
Code	String	success	The return value.
IsSuccess	Boolean	true	Indicates whether the API call is successful. Valid values: <code>true</code> : The request is successful. <code>false</code> : The request fails.
RequestId	String	CC43EC6B-0DD4-40AE-8811-B0519617051A	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=UpdateRepository
&InstanceId=cri-pri****
&RepoId=crr-tquyps22md8p****
&RepoType=PUBLIC
&Summary=test repo
&Detail=repo-for-test
&TagImmutability=true
&<Common request parameters>
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<UpdateRepositoryResponse>
  <Code>success</Code>
  <IsSuccess>true</IsSuccess>
  <RequestId>CC43EC6B-0DD4-40AE-8811-B0519617051A</RequestId>
</UpdateRepositoryResponse>
```

JSON **format**

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "Code" : "success",
  "IsSuccess" : true,
  "RequestId" : "CC43EC6B-0DD4-40AE-8811-B0519617051A"
}
```

3.2.4. ListRepository

Queries image repositories.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ListRepository	The operation that you want to perform. Set the value to ListRepository.
InstanceId	String	Yes	cri-pri****	The ID of the Container Registry Enterprise Edition instance.
RegionId	String	Yes	cn-wl-en****	The region ID of the instance.
RepoStatus	String	No	NORMAL	The status of the repository. Valid values: NORMAL : The repository is normal. DELETING : The repository is being deleted. DELETED : The repository was deleted.
RepoName	String	No	repo-test	The name of the repository.

Parameter	Type	Required	Example	Description
RepoNamespaceName	String	No	repo-namespace-test	The name of the namespace to which the repositories belong.
PageNo	Integer	No	1	The number of the page to return.
PageSize	Integer	No	30	The number of entries to return on each page.

Response parameters

Parameter	Type	Example	Description
Code	String	success	The return value.
IsSuccess	Boolean	true	Indicates whether the API call is successful. Valid values: <code>true</code> : The request is successful. <code>false</code> : The request fails.
PageNo	Integer	1	The page number of the returned page.
PageSize	Integer	30	The number of entries returned per page.
Repositories	Array of Repositories		The information about the repositories.
CreateTime	Long	1564153576000	The time when the repository was created.
InstanceId	String	cn-wl-en****	The ID of the Container Registry Enterprise Edition instance.
ModifiedTime	Long	1564153576000	The time when the repository was last modified.

Parameter	Type	Example	Description
RepoBuildType	String	MANUAL	Indicates how the repository was created. Valid values: <code>AUTO</code> : The repository was automatically created. <code>MANUAL</code> : The repository was manually created.
Repold	String	crr-03cuozrsqhk****	The ID of the repository.
RepoName	String	test	The name of the repository.
RepoNamespaceName	String	test	The name of the namespace to which the repositories belong.
RepoStatus	String	NORMAL	The status of the repository.
RepoType	String	PRIVATE	The type of the repository. Valid values: <code>PUBLIC</code> : The repository is a public repository. <code>PRIVATE</code> : The repository is a private repository.
Summary	String	test OK	The summary of the repository.
TagImmutability	Boolean	true	Indicates whether the feature of image tag immutability is enabled.
RequestId	String	5241C090-DA69-4B0F-8E3F-2F24FDE1110E	The ID of the request.
TotalCount	String	1	The total number of returned entries.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListRepository
&InstanceId=crr-pri****
&RegionId=cn-wl-en****
&<Common request parameters>
```

Sample success responses

XML format

```
<Repositories>
  <RepoNamespaceName>test</RepoNamespaceName>
  <TagImmutability>true</TagImmutability>
  <RepoBuildType>MANUAL</RepoBuildType>
  <ModifiedTime>1564153576000</ModifiedTime>
  <RepoType>PRIVATE</RepoType>
  <RepoStatus>NORMAL</RepoStatus>
  <InstanceId>cri-pri****</InstanceId>
  <CreateTime>1564153576000</CreateTime>
  <RepoName>test</RepoName>
  <Summary>test OK</Summary>
  <RepoId>crr-03cuozrsqhk****</RepoId>
</Repositories>
<IsSuccess>true</IsSuccess>
<TotalCount>1</TotalCount>
<PageSize>30</PageSize>
<RequestId>5241C090-DA69-4B0F-8E3F-2F24FDE1110E</RequestId>
<PageNo>1</PageNo>
<Code>success</Code>
```

JSON format

```
{
  "Repositories": {
    "RepoNamespaceName": "test",
    "TagImmutability": true,
    "RepoBuildType": "MANUAL",
    "ModifiedTime": 1564153576000,
    "RepoType": "PRIVATE",
    "RepoStatus": "NORMAL",
    "InstanceId": "cri-pri****",
    "CreateTime": 1564153576000,
    "RepoName": "test",
    "Summary": "test OK",
    "RepoId": "crr-03cuozrsqhk****"
  },
  "IsSuccess": true,
  "TotalCount": 1,
  "PageSize": 30,
  "RequestId": "5241C090-DA69-4B0F-8E3F-2F24FDE1110E",
  "PageNo": 1,
  "Code": "success"
}
```

3.2.5. GetRepository

Queries details about an image repository.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	GetRepository	The operation that you want to perform. Set the value to GetRepository.
InstanceId	String	Yes	cri-pri****	The ID of the Container Registry Enterprise Edition instance.
RegionId	String	Yes	cn-wl-en****	The region ID of the instance.
RepoId	String	No	crr-l5eoubonp0l****	The ID of the repository.
RepoNamespace Name	String	No	test	The name of the namespace to which the repository belongs.
RepoName	String	No	test	The name of the repository.

Response parameters

Parameter	Type	Example	Description
Code	String	success	The return value.
CreateTime	Long	1570759546000	The time when the repository was created.
Detail	String	test	The description of the repository.
InstanceId	String	cri-pri****	The ID of the Container Registry Enterprise Edition instance.
IsSuccess	Boolean	true	Indicates whether the API call is successful. Valid values: <code>true</code> : The request is successful. <code>false</code> : The request fails.
ModifiedTime	Long	1570759546100	The time when the repository was last modified.

Parameter	Type	Example	Description
RepoBuildType	String	MANUAL	Indicates how the repository was created. Valid values: <code>MANUAL</code> : The repository was manually created. <code>AUTO</code> : The repository was automatically created.
Repold	String	crr-l5eoubonp0l****	The ID of the repository.
RepoName	String	test	The name of the repository.
RepoNamespaceName	String	test	The name of the namespace to which the repository belongs.
RepoStatus	String	NORMAL	The status of the repository.
RepoType	String	PRIVATE	The type of the repository. Valid values: <code>PUBLIC</code> : The repository is a public repository. <code>PRIVATE</code> : The repository is a private repository.
RequestId	String	915E6734-3E50-4640-8DBA-126D2D94DE29	The ID of the request.
Summary	String	Automatically created repository	The summary of the repository.
TagImmutability	Boolean	true	Indicates whether the feature of image tag immutability is enabled. Valid values: <code>true</code> : The feature of image tag immutability is enabled. <code>false</code> : The feature of image tag immutability is disabled.

Examples

Sample requests


```
http(s)://[Endpoint]/?Action=GetRepository
&InstanceId=cri-pri****
&RegionId=cn-wl-en****
&<Common request parameters>
```

Sample success responses

XML format

```
<RepoNamespaceName>test</RepoNamespaceName>
<IsSuccess>true</IsSuccess>
<RequestId>915E6734-3E50-4640-8DBA-126D2D94DE29</RequestId>
<InstanceId>cri-pri****</InstanceId>
<CreateTime>1570759546000</CreateTime>
<RepoName>test</RepoName>
<Code>success</Code>
<TagImmutability>true</TagImmutability>
<RepoBuildType>MANUAL</RepoBuildType>
<ModifiedTime>1570759546100</ModifiedTime>
<RepoType>PRIVATE</RepoType>
<RepoStatus>NORMAL</RepoStatus>
<Summary>Automatically created repository</Summary>
<RepoId>crr-l5eoubonp0l****</RepoId>
<Detail>test</Detail>
```

JSON format

```
{
  "RepoNamespaceName": "test",
  "IsSuccess": true,
  "RequestId": "915E6734-3E50-4640-8DBA-126D2D94DE29",
  "InstanceId": "cri-pri****",
  "CreateTime": 1570759546000,
  "RepoName": "test",
  "Code": "success",
  "TagImmutability": true,
  "RepoBuildType": "MANUAL",
  "ModifiedTime": 1570759546100,
  "RepoType": "PRIVATE",
  "RepoStatus": "NORMAL",
  "Summary": "Automatically created repository",
  "RepoId": "crr-l5eoubonp0l****",
  "Detail": "test"
}
```

Error codes

访问[错误中心](#)查看更多错误码。

For a list of error codes, visit the [API Error Center](#).

3.3. Image management

3.3.1. ListRepoTag

Queries images in a repository.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ListRepoTag	The operation that you want to perform. Set the value to ListRepoTag.
InstanceId	String	Yes	cri-pri****	The ID of the Container Registry Enterprise Edition instance.
RegionId	String	Yes	cn-wl-en****	The region ID of the instance.
RepoId	String	Yes	crr- tquyps22md8p** **	The ID of the repository.
PageNo	Integer	No	1	The number of the page to return.
PageSize	Integer	No	30	The number of entries to return on each page.

Response parameters

Parameter	Type	Example	Description
Code	String	success	The return value.
Images	Array of Images		The images.
Digest	String	67bfbcc12b67936ec 7f867927817cbb071 832b873dbcaed312 a1930ba5f1****	The digest of the image.
ImageCreate	String	1572839125000	The time when the image was created.
ImageId	String	45023655bf39c382e 26a8607d057c27871 dee163c1ecf48cc1e bf2a1****	The ID of the image.

Parameter	Type	Example	Description
ImageSize	Long	27107966	The size of the image.
ImageUpdate	String	1572875608000	The time when the image was last updated.
Status	String	NORMAL	Status
Tag	String	v0.1	The tag of the image.
IsSuccess	Boolean	true	Indicates whether the API call is successful. Valid values: <code>true</code> : The request is successful. <code>false</code> : The request fails.
PageNo	Integer	1	The page number of the returned page.
PageSize	Integer	30	The number of entries returned per page.
RequestId	String	031572FA-7D8F-4C05-B790-1071E0E05DE6	The ID of the request.
TotalCount	String	1	The total number of returned entries.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListRepoTag
&InstanceId=cri-pri****
&RegionId=cn-wl-en****
&RepoId=crr-tquyps22md8p****
&<Common request parameters>
```

Sample success responses

`XML` format

```

<IsSuccess>true</IsSuccess>
<TotalCount>1</TotalCount>
<PageSize>30</PageSize>
<RequestId>031572FA-7D8F-4C05-B790-1071E0E05DE6</RequestId>
<Images>
  <Status>NORMAL</Status>
  <ImageCreate>1572839125000</ImageCreate>
  <ImageSize>27107966</ImageSize>
  <Digest>67bfbcc12b67936ec7f867927817cbb071832b873dbcaed312a1930ba5f1****</Digest>
  <ImageId>45023655bf39c382e26a8607d057c27871dee163c1ecf48cc1ebf2a1****</ImageId>
  <ImageUpdate>1572875608000</ImageUpdate>
  <Tag>v0.1</Tag>
</Images>
<PageNo>1</PageNo>
<Code>success</Code>

```

JSON format

```

{
  "IsSuccess": true,
  "TotalCount": 1,
  "PageSize": 30,
  "RequestId": "031572FA-7D8F-4C05-B790-1071E0E05DE6",
  "Images": {
    "Status": "NORMAL",
    "ImageCreate": 1572839125000,
    "ImageSize": 27107966,
    "Digest": "67bfbcc12b67936ec7f867927817cbb071832b873dbcaed312a1930ba5f1****",
    "ImageId": "45023655bf39c382e26a8607d057c27871dee163c1ecf48cc1ebf2a1****",
    "ImageUpdate": 1572875608000,
    "Tag": "v0.1"
  },
  "PageNo": 1,
  "Code": "success"
}

```

3.3.2. DeleteRepoTag

Deletes an image from a repository.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DeleteRepoTag	The operation that you want to perform. Set the value to DeleteRepoTag.

Parameter	Type	Required	Example	Description
InstanceId	String	Yes	cri-pri****	The ID of the Container Registry Enterprise Edition instance.
RegionId	String	Yes	cn-wl-en****	The region ID of the instance.
RepoId	String	Yes	crr-xwvi3osiy4ff****	The ID of the image repository.
Tag	String	Yes	1.24	The tag of the image.

Response parameters

Parameter	Type	Example	Description
Code	String	success	The return value.
IsSuccess	Boolean	true	Indicates whether the API call is successful. Valid values: <code>true</code> : The request is successful. <code>false</code> : The request fails.
RequestId	String	96E66B3A-C81A-48BE-ACD6-C0AB1F9313C0	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DeleteRepoTag
&InstanceId=cri-pri****
&RegionId=cn-wl-en****
&RepoId=crr-xwvi3osiy4ff****
&Tag=1.24
&<Common request parameters>
```

Sample success responses

XML format

```
<IsSuccess>true</IsSuccess>
<RequestId>96E66B3A-C81A-48BE-ACD6-C0AB1F9313C0</RequestId>
<Code>success</Code>
```

JSON format

```
{
  "IsSuccess": true,
  "RequestId": "96E66B3A-C81A-48BE-ACD6-C0AB1F9313C0",
  "Code": "success"
}
```

3.3.3. GetRepoTag

Queries the tag information about a single image.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	GetRepoTag	The operation that you want to perform. Set the value to GetRepoTag .
RegionId	String	Yes	cn-wl-en****	The region ID of the image.
InstanceId	String	Yes	cri-pri****	The ID of the Container Registry Enterprise Edition instance.
RepoId	String	Yes	crr-tquyps22md8p** **	The ID of the repository.
Tag	String	Yes	1.0	The tag of the repository.

Response parameters

Parameter	Type	Example	Description
Status	String	NORMAL	The status of the image. Valid values: <code>NORMAL</code> : The image is normal. <code>DELETING</code> : The image is being deleted.
ImageCreate	Long	1572839125000	The time when the image was created.
ImageSize	Long	27107966	The size of the image.

Parameter	Type	Example	Description
RequestId	String	031572FA-7D8F-4C05-B790-1071E0E05DE6	The ID of the request.
Digest	String	67bfbcc12b67936ec7f867927817cbb071832b873dbcaed312a1930ba5f1****	The digest of the image.
Code	String	success	The return value.
ImageUpdate	Long	1572875608000	The time when the image was last updated.
Tag	String	1.0	The tag of the image.
IsSuccess	Boolean	true	Indicates whether the API call is successful. Valid values: <code>true</code> : The request is successful. <code>false</code> : The request fails.
ImageId	String	45023655bf39c382e26a8607d057c27871dee163c1ecf48cc1ebf2a1****	The ID of the image.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=GetRepoTag
&InstanceId=cri-pri****
&RepoId=crr-tquyps22md8p****
&Tag=1.0
&<Common request parameters>
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<GetRepoTagResponse>
  <Status>NORMAL</Status>
  <ImageCreate>1572839125000</ImageCreate>
  <ImageSize>27107966</ImageSize>
  <RequestId>031572FA-7D8F-4C05-B790-1071E0E05DE6</RequestId>
  <Digest>67bfbcc12b67936ec7f867927817cbb071832b873dbcaed312a1930ba5f1****</Digest>
  <Code>success</Code>
  <ImageUpdate>1572875608000</ImageUpdate>
  <Tag>1.0</Tag>
  <IsSuccess>true</IsSuccess>
  <ImageId>45023655bf39c382e26a8607d057c27871dee163c1ecf48cc1ebf2a1****</ImageId>
</GetRepoTagResponse>
```

JSON format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "Status" : "NORMAL",
  "ImageCreate" : 1572839125000,
  "ImageSize" : 27107966,
  "RequestId" : "031572FA-7D8F-4C05-B790-1071E0E05DE6",
  "Digest" : "67bfbcc12b67936ec7f867927817cbb071832b873dbcaed312a1930ba5f1****",
  "Code" : "success",
  "ImageUpdate" : 1572875608000,
  "Tag" : 1,
  "IsSuccess" : true,
  "ImageId" : "45023655bf39c382e26a8607d057c27871dee163c1ecf48cc1ebf2a1****"
}
```

3.3.4. GetRepoTagLayers

Queries the information about image layers of an image that is corresponding to a tag.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	GetRepoTagLayers	The operation that you want to perform. Set the value to GetRepoTagLayers.
InstanceId	String	Yes	cri-pri****	The ID of the Container Registry Enterprise Edition instance.

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-wl-en****	The region ID of the instance.
RepoId	String	Yes	crr- kwgb20p8wwmh ****	The ID of the repository.
Tag	String	Yes	master	The tag of the image.

Response parameters

Parameter	Type	Example	Description
Code	String	success	The return value.
IsSuccess	Boolean	true	Indicates whether the API call is successful. Valid values: <code>true</code> : The request is successful. <code>false</code> : The request fails.
Layers	Array of Layers		The information about image layers.
BlobDigest	String	sha256:36fb85fcb5 e919cb60e782397a6 be04201868fe7b38e f7669fc01caec1c8fc 4e	The digest of the blob.
BlobSize	Long	23655489	The size of the blob.
LayerCMD	String	/usr/bin/virtual- kubelet /usr/bin/virtual- kubelet # buildkit	The command used to create the image layer.
LayerIndex	Integer	0	The index of the image layer.
LayerInstruction	String	COPY	The instruction used to create the image layer.
RequestId	String	D39D7151-0299- 47E3-B948- E49E1EA8D406	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=GetRepoTagLayers
&InstanceId=cri-pri****
&RegionId=cn-wl-en****
&RepoId=crr-kwgb20p8wvmh****
&Tag=master
&<Common request parameters>
```

Sample success responses

XML format

```
<IsSuccess>true</IsSuccess>
<RequestId>D39D7151-0299-47E3-B948-E49E1EA8D406</RequestId>
<Layers>
  <BlobDigest>sha256:36fb85fcb5e919cb60e782397a6be04201868fe7b38ef7669fc01caec1c8fc4e</BlobDigest>
  <LayerInstruction>COPY</LayerInstruction>
  <BlobSize>23655489</BlobSize>
  <LayerCMD>/usr/bin/virtual-kubelet /usr/bin/virtual-kubelet # buildkit</LayerCMD>
  <LayerIndex>0</LayerIndex>
</Layers>
<Code>success</Code>
```

JSON format

```
{
  "IsSuccess": true,
  "RequestId": "D39D7151-0299-47E3-B948-E49E1EA8D406",
  "Layers": [
    {
      "BlobDigest": "sha256:36fb85fcb5e919cb60e782397a6be04201868fe7b38ef7669fc01caec1c8fc4e",
      "LayerInstruction": "COPY",
      "BlobSize": 23655489,
      "LayerCMD": "/usr/bin/virtual-kubelet /usr/bin/virtual-kubelet # buildkit",
      "LayerIndex": 0
    }
  ],
  "Code": "success"
}
```

3.3.5. GetRepoTagManifest

Queries the manifest information of an image tag.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	GetRepoTagManifest	The operation that you want to perform. Set the value to GetRepoTagManifest.
InstanceId	String	Yes	cri-pri****	The ID of the Container Registry Enterprise Edition instance.
RegionId	String	Yes	cn-wl-en****	The region ID of the instance.
RepoId	String	Yes	crr-kwgb20p8wwmh****	The ID of the repository.
Tag	String	Yes	master	The tag of the image.
SchemaVersion	Integer	No	2	The schema version of the manifest. Valid values: 1 and 2.

Response parameters

Parameter	Type	Example	Description
Code	String	success	The return value.
IsSuccess	Boolean	true	Indicates whether the API call is successful. Valid values: - true : The request is successful. - false : The request fails.
Manifest	Struct		The information about the image manifest.
Architecture	String	null	The architecture of the image manifest.
Config	Struct		The configuration information.
Digest	String	sha256:b5b2b2c507a0944348e0303114d8d93aaaa081732b86451d9bce1f432a537bc7	The digest of the image.

Parameter	Type	Example	Description
MediaType	String	application/vnd.docker.container.image.v1+json	The MIME type of the configuration file.
Size	Long	7023	Size.
FsLayers	Array of FsLayers		A list of filesystem layer blob sums contained in this image.
BlobSum	String	null	The digest of the referenced filesystem image layer.
History	Array of History		A list of unstructured historical data for V1 compatibility.
V1Compatibility	Map	null	The raw V1 compatibility information.
Layers	Array of Layers		The information about image layers.
Digest	String	sha256:e692418e4c baf90ca69d05a6640 3747baa33ee088066 50b51fab815ad7fc3 31f	The digest of the image.
MediaType	String	application/vnd.docker.image.rootfs.diff.tar.gzip	The MIME type of the configuration file.
Size	Long	32654	Size.
MediaType	String	application/vnd.docker.distribution.manifest.v2+json	The MIME type of the configuration file.
Name	String	null	Name.
SchemaVersion	Integer	2	The schema version of the manifest.
Signatures	Array of Signatures		The information about signatures.
Header	Map	null	The header information of the signature.

Parameter	Type	Example	Description
Protected	String	null	The signed protected header.
Signature	String	null	The signature for the image manifest.
Tag	String	master	The tag of the image.
RequestId	String	D39D7151-0299-47E3-B948-E49E1EA8D406	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=GetRepoTagManifest
&InstanceId=cri-pri****
&RegionId=cn-wl-en****
&RepoId=crr-kwgb20p8wvmh****
&Tag=master
&<Common request parameters>
```

Sample success responses

`XML` format

```
<IsSuccess>true</IsSuccess>
<RequestId>D39D7151-0299-47E3-B948-E49E1EA8D406</RequestId>
<Manifest>
  <Architecture>null</Architecture>
  <SchemaVersion>2</SchemaVersion>
  <MediaType>application/vnd.docker.distribution.manifest.v2+json</MediaType>
  <Tag>master</Tag>
  <Name>null</Name>
  <FsLayers>
    <BlobSum>null</BlobSum>
  </FsLayers>
  <History>
    <V1Compatibility>null</V1Compatibility>
  </History>
  <Signatures>
    <Protected>null</Protected>
    <Header>null</Header>
    <Signature>null</Signature>
  </Signatures>
  <Layers>
    <Digest>sha256:e692418e4cbaf90ca69d05a66403747baa33ee08806650b51fab815ad7fc331f</Digest>
    <Size>32654</Size>
    <MediaType>application/vnd.docker.image.rootfs.diff.tar.gzip</MediaType>
  </Layers>
  <Config>
    <Digest>sha256:b5b2b2c507a0944348e0303114d8d93aaaa081732b86451d9bce1f432a537bc7</Digest>
    <Size>7023</Size>
    <MediaType>application/vnd.docker.container.image.v1+json</MediaType>
  </Config>
</Manifest>
<Code>success</Code>
```

JSON **format**

```
{
  "IsSuccess": true,
  "RequestId": "D39D7151-0299-47E3-B948-E49E1EA8D406",
  "Manifest": {
    "Architecture": "null",
    "SchemaVersion": 2,
    "MediaType": "application/vnd.docker.distribution.manifest.v2+json",
    "Tag": "master",
    "Name": "null",
    "FsLayers": {
      "BlobSum": "null"
    },
    "History": {
      "V1Compatibility": "null"
    },
    "Signatures": {
      "Protected": "null",
      "Header": "null",
      "Signature": "null"
    },
    "Layers": {
      "Digest": "sha256:e692418e4cbaf90ca69d05a66403747baa33ee08806650b51fab815ad7fc331f",
      "Size": 32654,
      "MediaType": "application/vnd.docker.image.rootfs.diff.tar.gzip"
    },
    "Config": {
      "Digest": "sha256:b5b2b2c507a0944348e0303114d8d93aaaa081732b86451d9bce1f432a537bc7",
      "Size": 7023,
      "MediaType": "application/vnd.docker.container.image.v1+json"
    }
  },
  "Code": "success"
}
```

3.3.6. CreateRepoTag

Creates an image tag based on an existing image tag in an image repository.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateRepoTag	The operation that you want to perform. Set the value to CreateRepoTag.
FromTag	String	Yes	v1	The source image tag.

Parameter	Type	Required	Example	Description
InstanceId	String	Yes	cri-pri****	The ID of the Container Registry Enterprise Edition instance.
NamespaceName	String	Yes	ns	The name of the namespace.
RegionId	String	Yes	cn-wl-en****	The region ID of the instance.
RepoName	String	Yes	repo1	The name of the image repository.
ToTag	String	Yes	v2	The image tag that you want to create.

Response parameters

Parameter	Type	Example	Description
Code	String	success	The response code.
IsSuccess	Boolean	true	Indicates whether the API call is successful. Valid values: <code>true</code> : The request is successful. <code>false</code> : The request fails.
RequestId	String	C4C7DD0C-C9D6-437A-A7EE-8BY*****	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateRepoTag
&FromTag=v1
&InstanceId=cri-pri****
&NamespaceName=ns
&RegionId=cn-wl-en****
&RepoName=repo1
&ToTag=v2
&<Common request parameters>
```

Sample success responses

`XML` format


```
<IsSuccess>true</IsSuccess>
<RequestId>C4C7DD0C-C9D6-437A-A7EE-8BY*****</RequestId>
<Code>success</Code>
```

JSON format

```
{
  "IsSuccess": true,
  "RequestId": "C4C7DD0C-C9D6-437A-A7EE-8BY*****",
  "Code": "success"
}
```

3.4. Trigger management

3.4.1. UpdateRepoTrigger

Updates a trigger for a repository.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	UpdateRepoTrigger	The operation that you want to perform. Set the value to UpdateRepoTrigger.
InstanceId	String	Yes	cri-pri****	The ID of the Container Registry Enterprise Edition instance.
RegionId	String	Yes	cn-wl-en****	The region ID of the instance.
RepoId	String	Yes	crr-tquyps22md8p**	The ID of the image repository.
TriggerId	String	Yes	crw-k7bdx4kt52ty****	The ID of the trigger.
TriggerName	String	No	test_trigger	The name of the trigger.
TriggerUrl	String	No	https://www.test.com	The URL of the trigger.

Parameter	Type	Required	Example	Description
TriggerType	String	No	TAG_LIST	The type of the trigger. Valid values: <code>ALL</code> : a trigger that supports both tags and regular expressions. The system triggers image pulls if an image is built successfully. <code>TAG_LISTTAG</code> : a tag-based trigger. The system triggers image pulls only if images with one of the specified tags are built successfully. <code>TAG_REG_EXP</code> : a regular expression-based trigger. Tags of newly-built images are filtered based on a regular expression. The system triggers image pulls only if images whose tags meet the regular expression are built successfully.
TriggerTag	String	No	master	The image tag based on which the trigger is set.

Response parameters

Parameter	Type	Example	Description
Code	String	success	The return value.
IsSuccess	Boolean	true	Indicates whether the API call is successful. Valid values: <code>true</code> : The request is successful. <code>false</code> : The request fails.
RequestId	String	32535049-ED91-4589-98C0-7C88766EDF1F	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=UpdateRepoTrigger
&InstanceId=cri-pri****
&RegionId=cn-wl-en****
&RepoId=crr-tquyps22md8p****
&TriggerId=crw-k7bdx4kt52ty****
&TriggerName=test_trigger
&<Common request parameters>
```

Sample success responses

XML format

```
<IsSuccess>true</IsSuccess>
<RequestId>32535049-ED91-4589-98C0-7C88766EDF1F</RequestId>
<Code>success</Code>
```

JSON format

```
{
  "IsSuccess":true,
  "RequestId":"32535049-ED91-4589-98C0-7C88766EDF1F",
  "Code":"success"
}
```

3.4.2. ListRepoTrigger

Queries the triggers of a repository.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ListRepoTrigger	The operation that you want to perform. Set the value to ListRepoTrigger.
InstanceId	String	Yes	cri-pri****	The ID of the Container Registry Enterprise Edition instance.
RegionId	String	Yes	cn-wl-en****	The region ID of the instance.
RepoId	String	Yes	crr-tquyps22md8p**	The ID of the image repository.

Response parameters

Parameter	Type	Example	Description
Code	String	success	The return value.
IsSuccess	Boolean	true	Indicates whether the API call is successful. Valid values: <code>true</code> : The request is successful. <code>false</code> : The request fails.
RequestId	String	2CA76D52-A8F0-4D0B-854E-FBD9F6C99049	The ID of the request.
Triggers	Array of Triggers		The triggers of the repository.
RepoEvent	String	BUILD_SUCCESS	The type of the event that activates the trigger. Valid values: <code>BUILD_SUCCESS</code> : The trigger is activated when the build is successful. <code>BUILD_Fail</code> : The trigger is activated when the build fails.
TriggerId	String	crw-vriyql9eq7ep****	The ID of the trigger.
TriggerName	String	test	The name of the trigger.
TriggerTag	String	*	The image tag based on which the trigger is set.
TriggerType	String	ALL	The type of the trigger. Valid values: <code>ALL</code> : a trigger that supports both tags and regular expressions. <code>TAG_LISTTAG</code> : a tag-based trigger. <code>TAG_REG_EXP</code> : a regular expression-based trigger.
TriggerUrl	String	https://www.test.com	The URL of the trigger.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListRepoTrigger
&InstanceId=cri-pri****
&RegionId=cn-wl-en****
&RepoId=crw-tquyps22md8p****
&<Common request parameters>
```

Sample success responses

XML format

```
<IsSuccess>true</IsSuccess>
<RequestId>2CA76D52-A8F0-4D0B-854E-FBD9F6C99049</RequestId>
<Triggers>
  <TriggerUrl>https://www.test.com</TriggerUrl>
  <TriggerType>ALL</TriggerType>
  <RepoEvent>BUILD_SUCCESS</RepoEvent>
  <TriggerName>test</TriggerName>
  <TriggerTag>*</TriggerTag>
  <TriggerId>crw-vriyql9eq7ep****</TriggerId>
</Triggers>
<Code>success</Code>
```

JSON format

```
{
  "IsSuccess": true,
  "RequestId": "2CA76D52-A8F0-4D0B-854E-FBD9F6C99049",
  "Triggers": {
    "TriggerUrl": "https://www.test.com",
    "TriggerType": "ALL",
    "RepoEvent": "BUILD_SUCCESS",
    "TriggerName": "test",
    "TriggerTag": "*",
    "TriggerId": "crw-vriyql9eq7ep****"
  },
  "Code": "success"
}
```

3.4.3. CreateRepoTrigger

Creates a trigger for a repository.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateRepoTrigger	The operation that you want to perform. Set the value to <code>CreateRepoTrigger</code> .

Parameter	Type	Required	Example	Description
InstanceId	String	Yes	cri-pri****	The ID of the Container Registry Enterprise Edition instance.
RegionId	String	Yes	cn-wl-en****	The region ID of the instance.
RepoId	String	Yes	crr-xwvi3osiy4ff****	The ID of the image repository.
TriggerName	String	Yes	trigger1	The name of the trigger.

Parameter	Type	Required	Example	Description
TriggerTag	String	Yes	[1]	The image tag based on which the trigger is set.  Note • If <code>TriggerType</code> is set to <code>ALL</code>, <code>TriggerTag</code> can be set to a string or an array, for example, <code>*</code>. • If <code>TriggerType</code> is set to <code>TAG_LIST</code>, <code>TriggerTag</code> must be set to an array, for example, <code>[1]</code>. • If <code>TriggerType</code> is set to <code>TAG_REG_EXP</code>, <code>TriggerTag</code> must be set to a string, for example, <code>*</code>.
TriggerType	String	Yes	ALL	The type of the trigger. Valid values: • <code>ALL</code>: a trigger that supports both tags and regular expressions. • <code>TAG_LIST</code>: a tag-based trigger. • <code>TAG_REG_EXP</code>: a regular expression-based trigger.

Parameter	Type	Required	Example	Description
TriggerUrl	String	Yes	http://www.mysite.com	The URL of the trigger.

Response parameters

Parameter	Type	Example	Description
Code	String	success	The return value.
IsSuccess	Boolean	true	Indicates whether the API call is successful. Valid values: <code>true</code> : The request is successful. <code>false</code> : The request fails.
RequestId	String	B79F5E0E-8770-407D-BCB6-ECF4BA9C****	The ID of the request.
TriggerId	String	crw-0z4pf81pgz35****	The ID of the trigger.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateRepoTrigger
&InstanceId=cri-pri****
&RegionId=cn-wl-en****
&RepoId=crr-xwvi3osiy4ff****
&TriggerName=trigger1
&TriggerTag=[1]
&TriggerType=ALL
&TriggerUrl=http://www.mysite.com
&<Common request parameters>
```

Sample success responses

XML format

```
<IsSuccess>true</IsSuccess>
<RequestId>B79F5E0E-8770-407D-BCB6-ECF4BA9C****</RequestId>
<TriggerId>crw-0z4pf81pgz35****</TriggerId>
<Code>success</Code>
```

JSON format


```
{
  "IsSuccess": true,
  "RequestId": "B79F5E0E-8770-407D-BCB6-ECF4BA9C****",
  "TriggerId": "crw-0z4pf81pgz35****",
  "Code": "success"
}
```

3.4.4. DeleteRepoTrigger

Deletes a trigger of an image repository.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DeleteRepoTrigger	The operation that you want to perform. Set the value to DeleteRepoTrigger.
InstanceId	String	Yes	cri-pri****	The ID of the instance.
RegionId	String	Yes	cn-wl-en****	The ID of the region.
RepoId	String	Yes	crr-xwvi3osiy4ff****	The ID of the image repository.
TriggerId	String	Yes	crw-0z4pf81pgz35****	The ID of the trigger that you want to delete.

Response parameters

Parameter	Type	Example	Description
Code	String	success	The return value.
IsSuccess	Boolean	true	Indicates whether the API call is successful. Valid values: - true : successful - false : failed
RequestId	String	85180AE4-9A57-48F8-9EF9-68ECCE54B552	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DeleteRepoTrigger
&InstanceId=cri-pri****
&RegionId=cn-wl-en****
&RepoId=crr-xwvi3osiy4ff****
&TriggerId=crw-0z4pf81pgz35****
&<Common request parameters>
```

Sample success responses

XML format

```
<IsSuccess>true</IsSuccess>
<RequestId>85180AE4-9A57-48F8-9EF9-68ECCE54B552</RequestId>
<Code>success</Code>
```

JSON format

```
{
  "IsSuccess":true,
  "RequestId":"85180AE4-9A57-48F8-9EF9-68ECCE54B552",
  "Code":"success"
}
```

3.5. Access credential management

3.5.1. GetAuthorizationToken

Obtains the temporary account and token that you use to log on to a Container Registry instance.

The returned token is valid for one hour. If you request for the token by using Security Token Service (STS), the returned token is valid within the validity period of the STS token. Take note of the following items when you log on to Container Registry instances by using an STS token:

- If the STS token belongs to an Alibaba Cloud account, you can use the STS token to log on to all Container Registry instances that belong to the Alibaba Cloud account.
- If the STS token belongs to a RAM user, you can use the STS token to log on to all Container Registry instances that belong to the RAM user.
- You can use an STS token to access only Container Registry instances to which the STS token is scoped.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	GetAuthorizationToken	The operation that you want to perform. Set the value to GetAuthorizationToken.

Parameter	Type	Required	Example	Description
InstanceId	String	Yes	cri-pri****	The ID of the instance.
RegionId	String	Yes	cn-wl-en****	The ID of the region.

Response parameters

Parameter	Type	Example	Description
AuthorizationToken	String	shaunadadakks:uuc zxnjcyeyhdjadjkajsjd ****	The token that is returned.
Code	String	success	The return value.
ExpireTime	Long	1571242083000	The timestamp when the token expires. Unit: milliseconds.
IsSuccess	Boolean	true	Indicates whether the API call is successful. Valid values: <code>true</code> : successful <code>false</code> : failed
RequestId	String	E069EB86-E6AD- 4A98-ADDE- 0E993390239A	The ID of the request.
TempUsername	String	temp_user_cr	The username that is used to log on to the instance.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=GetAuthorizationToken
&InstanceId=cri-pri****
&RegionId=cn-wl-en****
&<Common request parameters>
```

Sample success responses

`XML` format

```
<IsSuccess>true</IsSuccess>
<AuthorizationToken>shaunadadakks:uuczxnjcyeyhdjadkkajsjd****</AuthorizationToken>
<TempUsername>temp_user_cr</TempUsername>
<RequestId>E069EB86-E6AD-4A98-ADDE-0E993390239A</RequestId>
<ExpireTime>1571242083000</ExpireTime>
<Code>success</Code>
```

JSON format

```
{
  "IsSuccess": true,
  "AuthorizationToken": "shaunadadakks:uuczxnjcyeyhdjadkkajsjd****",
  "TempUsername": "temp_user_cr",
  "RequestId": "E069EB86-E6AD-4A98-ADDE-0E993390239A",
  "ExpireTime": 1571242083000,
  "Code": "success"
}
```

3.5.2. ResetLoginPassword

Resets the logon password of a Container Registry instance.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ResetLoginPassword	The operation that you want to perform. Set the value to ResetLoginPassword.
InstanceId	String	Yes	cri-pri****	The ID of the instance.
Password	String	Yes	test	The new logon password.
RegionId	String	Yes	cn-wl-en****	The ID of the region.

Response parameters

Parameter	Type	Example	Description
Code	String	success	The return value.

Parameter	Type	Example	Description
IsSuccess	Boolean	true	Indicates whether the API call is successful. Valid values: <code>true</code> : successful <code>false</code> : failed
RequestId	String	EB9C5722-51E2-4497-A573-575B0CA5CE0C	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ResetLoginPassword
&InstanceId=cri-pri****
&Password=test
&RegionId=cn-wl-en****
&<Common request parameters>
```

Sample success responses

XML format

```
<IsSuccess>true</IsSuccess>
<RequestId>EB9C5722-51E2-4497-A573-575B0CA5CE0C</RequestId>
<Code>success</Code>
```

JSON format

```
{
  "IsSuccess":true,
  "RequestId":"EB9C5722-51E2-4497-A573-575B0CA5CE0C",
  "Code":"success"
}
```

4. Appendixes

4.1. Process of API calls by using the ASAPI gateway

You can use the Apsara Stack API (ASAPI) gateway to call API operations of most Apsara Stack services. This topic describes how to call an API operation of an Apsara Stack service by using the ASAPI gateway.

Flowchart



Procedure

1. Obtain Apsara Stack SDKs.

Before you use the ASAPI gateway to make an API call, you must obtain Apsara Stack SDKs. For more information, see [Obtain Apsara Stack SDKs](#).

2. Obtain the endpoint of ASAPI. For more information, see [Obtain the endpoint of ASAPI](#).
3. Obtain an AccessKey pair.

Obtain the AccessKey pair that is required for the API call.

Note

We recommend that you use the AccessKey pair of a personal account to call the API operations of the Apsara Uni-manager Management Console and cloud services.

4. Obtain the region ID.

Obtain the value of the RegionID parameter that is required for the API call.

5. Obtain the organization ID and resource set ID.

You can call the GetOrganizationList operation to obtain the organization ID. For more information, see *GetOrganizationList* in *Apsara Uni-manager Management Console Developer Guide*.

You can call the ListResourceGroup operation to obtain the resource set ID. For more information, see *ListResourceGroup* in *Apsara Uni-manager Management Console Developer Guide*.

 Note

When you call an API operation, set the <x-acs-organizationid> parameter to the organization ID that you obtained, and set the <x-acs-resourcegroupid> parameter to the resource set ID that you obtained. This way, you can query resources in the specified organization and resource set.

- If you do not set the <x-acs-organizationid> parameter, the organization to which the current user belongs is queried by default.
- If you do not set the <x-acs-resourcegroupid> parameter, this parameter is left empty by default. If you specify a resource set, you must also specify an organization ID.

6. View the developer guide of the cloud service that you want to use to learn how to make the API call.

View the developer guide of the cloud service that you want to use. This way, you can learn the features of API operations and how to call the API operations. For more information, see [Use developer guides](#).

7. Use Apsara Stack SDKs to make an API call.

After you complete the preceding steps, you can use Apsara Stack SDKs to make an API call. You can refer to API Reference for details about how to make the API call based on the programming language that you use.

In the following sample code, Java and the DescribeInstances API operation of Elastic Compute Service (ECS) are used. Sample code:

```
public static void main(String[] args) {
    ASClient client = new ASClient();
    // Specify the source of the call. This parameter is used only for logging.
    client.setSdkSource("autoTest");

    // Configure request parameters.
    Map<String, Object> parameters = new HashMap<String, Object>();

    parameters.put("Product", "Ecs");// Specify the service code to be the same as the
    one displayed in the corresponding API directory.

    parameters.put("Action", "DescribeInstances");// Specify the name of the API opera-
    tion. The name must be case-sensitive and the same as that displayed in the API directo-
    ry.

    parameters.put("Version", "2014-05-26");// Specify the API version.

    // Specify the obtained region ID.
    parameters.put("RegionId", "xxx");

    // Specify the obtained AccessKey ID and AccessKey secret.
    parameters.put("AccessKeyId", "xxx");
    parameters.put("AccessKeySecret", "xxx");

    // Specify the following parameters for this API call. The parameters are case-sens-
    itive.
    parameters.put("PageNumber",1);
    parameters.put("PageSize",10);

    Map<String,String> headers=new HashMap<>();
    // Specify the obtained organization ID.
    headers.put("x-acs-organizationid","3");
    // Specify the obtained resource set ID.
    //headers.put("x-acs-resourcegroupid", "<your-resourcegroupid>");

    // Specify the obtained endpoint of ASAPI.
    String endpoint="https://public.asapi.xxx.xxx/asapi/v3";

    // Initiate the request.
    String result = client.doPost(endpoint,headers, parameters);

    // Display the results.
    System.out.println(JSONObject.toJSONString(JSONObject.parseObject(result), Serializ-
    erFeature.PrettyFormat));
}
```

4.2. Use the ASAPI gateway to make API calls

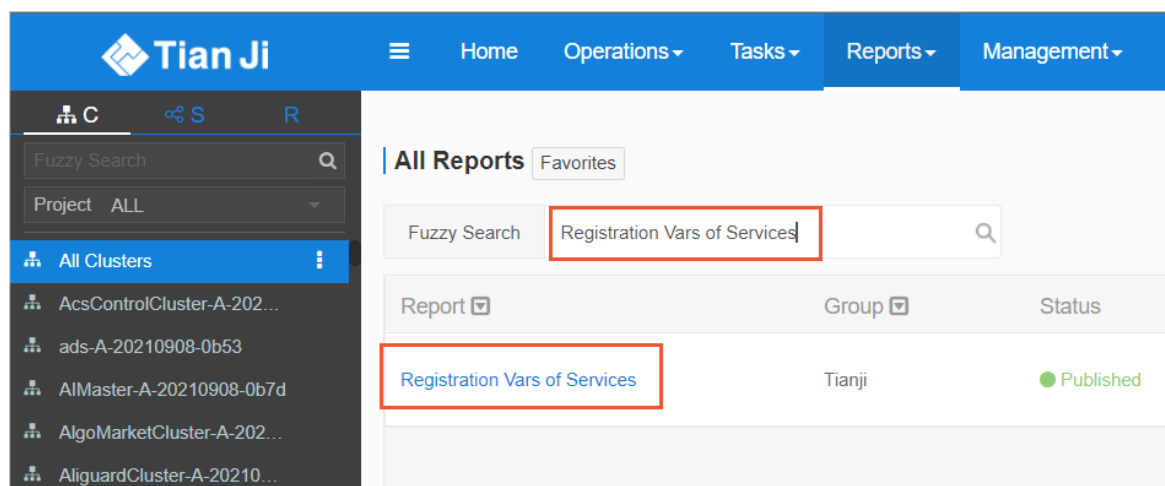
4.2.1. Obtain an endpoint of ASAPI

This topic describes three methods that you can use to obtain an endpoint of Apsara Stack API (ASAPI) and how to verify the endpoint.

Methods

Method 1: Use Registration Vars of Services to obtain an endpoint

- Log on to the Apsara Infrastructure Management console.
 - Log on to the Apsara Uni-manager Operations Console.
 - In the top navigation bar, click **Products**.
 - Choose **Platforms > Apsara Infrastructure Management Framework**.
- In the left-side navigation pane, click **Reports**.
- On the **All Reports** page, search for `Registration Vars of Services` and click the report name.



- On the **Registration Vars of Services** page, click the  icon next to **Service** and search for `asapi`.
- Find the `asapi` service, right-click in the **Service Registration** column, and then select **Show More** from the shortcut menu.
In the **Details** dialog box, obtain the value of `asapi.public.endpoint`.
- Generate an endpoint of ASAPI based on the following format:

```
https://<asapi.public.endpoint>/asapi/v3
```

Method 2: Use cluster resources to generate an endpoint

- Log on to the Apsara Infrastructure Management console.
 - Log on to the Apsara Uni-manager Operations Console.
 - In the top navigation bar, click **Products**.
 - Choose **Platforms > Apsara Infrastructure Management Framework**.

2. Go to the Clusters page.
 - i. In the left-side navigation pane, choose **Operations > Cluster Operations**.
 - ii. In the **Cluster** search box, enter `ascm`.
 - iii. Click **Operations** in the **Actions** column.
3. Obtain the value of the domain parameter.
 - i. Click the **Cluster Resources** tab.
 - ii. In the **Name** field, search for `asapi_dns_public`.
 - iii. Click **Details** in the **Application Parameter** column.

In the **Application Parameter** message, obtain the value of the **domain** parameter.

```
{
  "domain": "public.asapi.<region>.<internet-domain>.com",
  "ha_apply_type": "active-active",
  "name": "asapi_dns_public",
  "vip": "10.0.0.1"
}
```

4. Generate an endpoint of ASAPI based on the following format:

```
https://<domain>/asapi/v3
```

Method 3: Concatenate strings to generate an endpoint

You can also concatenate strings to generate an endpoint based on the following format:

```
https://public.asapi.<region>.<internet-domain>/asapi/v3
```

Note

1. Replace `<region>` with the actual region ID.
2. Replace `<internet-domain>` with the root domain of your Apsara Stack service. To obtain the root domain, contact Apsara Stack O&M personnel. Take note of this point: Use the internet-domain parameter instead of the intranet-domain parameter.

If the **region** value is `cn-****-****-d01` and the **internet-domain** value is `inter.****.****.com`, the following endpoint is used:

```
https://public.asapi.cn-****-****-d01.inter.****.****.com/asapi/v3
```

Verify the endpoint

Enter the following code. If you cannot access the endpoint, the endpoint is unavailable. You can use the historical endpoint.

```
curl https://public.asapi.${global:region}.${global:internet-domain}/api/version -k
```

Note

`${global:region}` and `${global:internet-domain}` are variables. You must replace them with the actual values that you obtained.

Available endpoint example:

```
root@ ~ # curl https://public.asapi.us-east-1.amazonaws.com/api/version -k
{"version":"v3.13","code":"200","apiCount":12379,"desc":"update xml pretty"}root@ ~
```

Unavailable endpoint example:

```
[root@ ~]# curl https://public.asapi.us-east-1.amazonaws.com/api/version -k -i
curl: (35) Peer reports it experienced an internal error.
```

Historical endpoint

Only the HTTP protocol is supported. The historical endpoint is suffixed with `intranet-domain` and in the following format:

```
http://server.asapi.${global:region}.${global:intranet-domain}/asapi/v3
```

Note

`${global:region}` and `${global:intranet-domain}` are variables. You must replace them with the actual values that you obtained.

Procedure

To obtain the actual values of the variables `${global:region}`, `${global:internet-domain}`, and `${global:intranet-domain}`, perform the following operations:

1. In the address bar, enter the *region-id.aso.intranet-domain-id.com* URL and press the Enter key.

Note

You can select a language from the drop-down list in the upper-right corner of the page.

2. Enter your username and password.

Note

Obtain the username and password used to log on to the Apsara Uni-manager Operations Console from the deployment personnel or an administrator.

When you log on to the Apsara Uni-manager Operations Console for the first time, you must change the password of your username.

To enhance security, your password must meet the following requirements:

- The password contains uppercase and lowercase letters.
 - The password contains digits.
 - The password contains special characters such as exclamation points (!), at signs (@), number signs (#), dollar signs (\$), and percent signs (%).
 - The password is 10 to 20 characters in length.
3. Click **Log On** to log on to the **Apsara Uni-manager Operations Console**.
 4. In the top navigation bar, choose **Products > Platforms > Apsara Infrastructure Management Framework** to go to Apsara Infrastructure Management.
 5. In the left-side navigation pane, choose **Operations > Cluster Operations**.
 6. On the **Clusters** page, enter **ascm-A** in the Cluster search box to find the cluster. Click the cluster name.
 7. On the **Cluster Dashboard** page, click **Operations Menu > Configuration Files**.
 8. In the **File List** window on the left side of the **Cluster Configuration** page, click **kv.conf**, click the file content in the right window, and then press Ctrl + F. Search for region, internet-domain, and intranet-domain.

Replace `${global:region}` with the obtained region value, `${global:internet-domain}` with the obtained internet-domain value, and `${global:intranet-domain}` with the obtained intranet-domain value.

 Note

`${global:}` is not included in the endpoint of ASAPI that you can use.

4.2.2. Obtain Apsara Stack SDKs

Apsara Stack API (ASAPI) is a unified portal provided by Apsara Stack. You can use ASAPI to connect to all Apsara Stack services. Apsara Stack provides SDKs for API calls.

Public environment

If you are using the public environment, you can go to the [Apsara Stack documentation](#) page and download the Apsara Stack SDKs in the **Other Resources** section at the lower part of the page.

Private environment

If you are using the private environment, you must switch to the public environment and then go to the [Apsara Stack documentation](#) page. At the lower part of the page, download the Apsara Stack SDKs in the **Other Resources** section.

Apsara Stack SDK for Java

groupId	artifactId	Version
com.alibaba	alicrypto-java-aliyun	1.0.4
com.alibaba	fastjson	1.2.68
org.bouncycastle	bcprov-jdk15to18	1.66
org.bouncycastle	bcpkix-jdk15on	1.65
org.bouncycastle	bcprov-jdk15on	1.65
com.aliyun	gmsse	1.1.0
org.apache.commons	commons-lang3	3.0
commons-codec	commons-codec	1.11
commons-logging	commons-logging	1.2
org.apache.httpcomponents	httpcore	4.4.11
org.apache.httpcomponents	httpclient	4.5.7

Apsara Stack SDK for Python

Package	Version
aliyun-python-sdk-core	2.13.35
certifi	2021.5.30
cffi	1.14.6
charset-normalizer	2.0.4
cryptography	3.4.8
idna	3.2
jmespath	0.10.0
pycparser	2.20
requests	2.26.0
urllib3	1.26.6

 **Note** You can use the version for each package listed in the preceding table or a later version.

4.3. STS overview

4.3.1. What is STS?

Security Token Service (STS) allows you to manage temporary credentials to your Apsara Stack resources. Resource Access Management (RAM) provides RAM users and RAM roles. A RAM role does not have permanent identity credentials. A RAM role can be assumed to access Apsara Stack resources by using an issued STS token. When the STS token is issued, you can specify a validity period and access permissions for the STS token.

Use a RAM user to obtain an STS token

An authorized RAM user can use an AccessKey pair to call the [AssumeRole](#) operation. This way, the RAM user can obtain an STS token of a RAM role and can use the STS token to access Apsara Stack resources.

Benefits

- STS tokens help reduce the risks of AccessKey pair leaks. An AccessKey pair is a long-term credential for a RAM user.
- STS tokens are temporary credentials. You can specify the validity period for STS tokens. After STS tokens expire, they become invalid. Therefore, you do not need to rotate the STS tokens on a regular basis.
- You can attach custom policies to STS tokens for flexible and fine-grained authorization.

4.3.2. AssumeRole

Obtains a Security Token Service (STS) token that is used by a RAM user to assume a RAM role. In this example, an Apsara Stack tenant account is used as the trusted entity of the RAM role.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	AssumeRole	The operation that you want to perform. Set the value to AssumeRole.
RoleArn	String	Yes	acs:ram::123456789012****:role/adminrole	The Apsara Stack Resource Name (ARN) of the RAM role. The trusted entity of the RAM role is an Apsara Stack tenant account.

Parameter	Type	Required	Example	Description
RoleSessionName	String	Yes	alice	The name of the role session. Set this parameter based on your business requirements. In most cases, you can set this parameter to the identity of the user who calls the operation. For example, specify a username. In ActionTrail logs, you can distinguish the users who assume the same RAM role to perform operations based on the value of the RoleSessionName parameter. This way, you can perform user-specific auditing. The name must be 2 to 64 characters in length and can contain letters, digits, periods (.), at signs (@), hyphens (-), and underscores (_).
Policy	String	No	<pre>{"Statement": [{"Action": ["*"], "Effect": "Allow", "Resource": ["*"]}], "Version": "1"}</pre>	The policy that specifies the permissions of the STS token. You can use this parameter to grant the STS token fewer permissions than the permissions granted to the RAM role. The policy must be 1 to 1,024 characters in length.

Responses

Parameter	Type	Example	Description
RequestId	String	6894B13B-6D71-4EF5-88FA-F32781734A7F	The ID of the request.
Credentials	None	None	The access credentials.

Parameter	Type	Example	Description
AccessKeyId	String	STS.L4aBSCSJVMuKg5U1****	The AccessKey ID.
AccessKeySecret	String	wyLT SmsyPGP1ohvw8xYgB29dIGi8KMiH2pK****	The AccessKey secret.
SecurityToken	String	*****	The security token.
Expiration	String	2015-04-09T11:52:19Z	The time when the STS token expires.
AssumedRoleUser	None	None	The temporary identity that you use to assume the RAM role.
Arn	String	acs:ram::123456789012****:role/adminrole/alice	The ARN of the temporary identity that you use to assume the RAM role.
AssumedRoleId	String	34458433936495****:alice	The ID of the temporary identity that you use to assume the RAM role.

Examples

Add Project Object Model (POM) dependencies

The Alibaba Cloud core library is required. Perform the following steps to add the Alibaba Cloud core library to POM:

```
<dependency>
  <groupId>com.aliyun</groupId>
  <artifactId>aliyun-java-sdk-core</artifactId>
  <version>[4.4.9,5.0.0)</version>
</dependency>
```

Call an API operation to obtain the STS AccessKey 3-tuple.

In the following sample code, the `Sts::AssumeRole::2015-04-01` operation is used to obtain the 3-tuple.

```
package com.aliyuns.test;

import com.alibaba.fastjson.JSONObject;
import com.aliyuncs.CommonRequest;
```



```

import com.aliyuncs.CommonResponse;
import com.aliyuncs.DefaultAcsClient;
import com.aliyuncs.IAcsClient;
import com.aliyuncs.exceptions.ClientException;
import com.aliyuncs.exceptions.ServerException;
import com.aliyuncs.http.FormatType;
import com.aliyuncs.http.HttpClientConfig;
import com.aliyuncs.http.MethodType;
import com.aliyuncs.http.ProtocolType;
import com.aliyuncs.profile.DefaultProfile;
import org.apache.commons.lang3.StringUtils;

public class STSAccessKeyDemo {
    public static void main(String[] args) {
        // Create and initialize a DefaultAcsClient instance.
        DefaultProfile profile = DefaultProfile.getProfile("<yourRegionID>", "<yourAccessKeyID>", "<yourAccessKeySecret>");
        HttpClientConfig clientConfig = HttpClientConfig.getDefault();
        clientConfig.setIgnoreSSLCerts(true);
        clientConfig.setProtocolType(ProtocolType.HTTPS);
        profile.setHttpClientConfig(clientConfig);
        IAcsClient client = new DefaultAcsClient(profile);
        CommonRequest request = new CommonRequest();
        // Replace "sts.aliyuncs.com" with the actual endpoint of STS. In most cases, the endpoint is in the following format: sts-vpc.${global:region}.${global:internet-domain}.
        request.setSysDomain("sts.aliyuncs.com");
        request.setSysProduct("Sts");
        request.setSysAction("AssumeRole");
        request.setSysVersion("2015-04-01");
        request.setSysMethod(MethodType.POST);
        request.setHttpContentType(FormatType.FORM);
        // Replace "<yourRoleSessionName>" with the alias that you specify for the current role session.
        request.putQueryParameter("RoleSessionName", "<yourRoleSessionName>");
        // Replace "<yourRoleArn>" with the actual ARN that you obtained for the RAM role in the preceding step.
        request.putQueryParameter("RoleArn", "<yourRoleArn>");
        try {
            CommonResponse response = client.getCommonResponse(request);
            String assumeRole = response.getData();
            if (StringUtils.isEmpty(assumeRole)) return;
            JSONObject assumeRoleJson = JSONObject.parseObject(assumeRole);
            JSONObject credentials = assumeRoleJson.getJSONObject("Credentials");
            // Obtain the STS AccessKey 3-tuple.
            String stsAK = credentials.getString("AccessKeyId");
            String stsSK = credentials.getString("AccessKeySecret");
            String stsToken = credentials.getString("SecurityToken");
            System.out.println("stsAk: " + stsAK + "\nstsSk: " + stsSK + "\nstsToken: " + stsToken);
        } catch (ServerException e) {
            System.out.println(e.getErrCode());
            System.out.println(e.getErrMsg());
        } catch (ClientException e) {
            System.out.println(e.getErrCode());
        }
    }
}

```

```

        System.out.println(e.getErrMsg());
    }
}
}

```

Call examples

In the following sample code, the `DescribeZones` operation in Elastic Compute Service (ECS) is used.

```

package com.aliyuncs.test;

import com.aliyuncs.CommonRequest;
import com.aliyuncs.CommonResponse;
import com.aliyuncs.DefaultAcsClient;
import com.aliyuncs.IAcsClient;
import com.aliyuncs.exceptions.ClientException;
import com.aliyuncs.exceptions.ServerException;
import com.aliyuncs.http.FormatType;
import com.aliyuncs.http.HttpClientConfig;
import com.aliyuncs.http.MethodType;
import com.aliyuncs.http.ProtocolType;
import com.aliyuncs.profile.DefaultProfile;

public class DescribeZonesDemo {
    public static void main(String[] args) {
        // Replace "<yourRegionID>" with the actual region ID.
        // Replace "<yourStsAccesskey>" and "<yourStsAccessKeySecret>" with the AccessKey ID and secret in the 3-tuple that you obtained in the preceding step.
        DefaultProfile profile = DefaultProfile.getProfile("<yourRegionID>", "<yourStsAccessKey>", "<yourStsAccessKeySecret>");
        HttpClientConfig clientConfig = HttpClientConfig.getDefault();
        clientConfig.setIgnoreSSLCerts(true);
        clientConfig.setProtocolType(ProtocolType.HTTPS);
        profile.setHttpClientConfig(clientConfig);
        IAcsClient client = new DefaultAcsClient(profile);
        CommonRequest request = new CommonRequest();
        request.setSysDomain("ecs.aliyuncs.com");
        request.setSysProduct("Ecs");
        request.setSysAction("DescribeZones");
        request.setSysVersion("2014-05-26");
        request.setSysMethod(MethodType.POST);
        request.setHttpContentType(FormatType.FORM);
        // Replace "<yourRegionID>" with the actual region ID.
        request.putHeadParameter("x-acs-regionid", "<yourRegionID>");
        // Replace "<yourStsToken>" with the STS token in the 3-tuple that you obtained in the preceding step.
        request.putQueryParameter("SecurityToken", "<yourStsToken>");
        // Optional. Specify the resource set ID.
        // request.putHeadParameter("x-acs-resourcegroupid", "<yourResourceGroupID>");
        // Required. Specify the organization ID.
        request.putHeadParameter("x-acs-organizationid", "<yourOrganizationID>");
        try {
            CommonResponse response = client.getCommonResponse(request);

```

```

        System.out.println(response.getData());
    } catch (ServerException e) {
        System.out.println(e.getErrCode());
        System.out.println(e.getErrMsg());
    } catch (ClientException e) {
        System.out.println(e.getErrCode());
        System.out.println(e.getErrMsg());
    }
}
}
}

```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidParameter	The parameter RoleArn is wrongly formed.	The error message returned because the ARN format of the RAM role is invalid.
400	InvalidParameter.RoleArn	The parameter RoleArn is wrongly formed.	The error message returned because the ARN format of the RAM role is invalid.
400	InvalidParameter.RoleSessionName	The parameter RoleSessionName is wrongly formed.	The error message returned because the value of the RoleSessionName parameter is in an invalid format. The value must be 2 to 64 characters in length and can contain letters, digits, periods (.), at signs (@), hyphens (-), and underscores (_).

HttpCode	Error code	Error message	Description
400	InvalidParameter.DurationSeconds	The Min/Max value of DurationSeconds is 15min/1hr.	The error message returned because the value of the DurationSeconds parameter is invalid. The minimum value is 900, and the maximum value is equal to the value of the MaxSessionDuration parameter.
400	InvalidParameter.PolicyGrammar	The parameter Policy has not passed grammar check.	The error message returned because the syntax of the policy is invalid.
400	InvalidParameter.PolicySize	The size of Policy must be smaller than 1024 bytes.	The error message returned because the length of the specified policy string exceeds the upper limit. The policy string can be up to 1,024 characters in length.
403	NoPermission	You are not authorized to do this action. You should be authorized by RAM.	The error message returned because the STS token does not have the required permissions.
404	EntityNotExist.Role	The specified Role not exists.	The error message returned because the specified RAM role does not exist.
500	InternalServerError	STS Server Internal Error happened.	The error message returned because an internal server error occurred.