CodeArts Deploy

API Reference

Issue 01

Date 2023-11-30

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1 Before You Start

1.1 Overview

Welcome to CodeArts Deploy. CodeArts Deploy provides visualized, one-click deployment. It supports deployment on VMs or containers by using Tomcat, Spring Boot, and other templates or by flexibly orchestrating atomic actions. It also supports parallel deployment and seamless integration with CodeArts Pipeline, providing standard deployment environments and implementing automatic deployment. You can use the APIs described in this document to perform various operations, such as creating hosts and host clusters, and deploying applications. For details about all supported operations, see **API Overview**.

If you plan to access CodeArts Deploy through an API, ensure that you are familiar with CodeArts Deploy concepts. For details, see **CodeArts Deploy Overview**.

1.2 Calling Method

CodeArts Deploy supports Representational State Transfer (REST) APIs, allowing you to call APIs using HTTPS. For details about API calling, see **Making an API Request**.

1.3 Endpoints

An endpoint is the **request address** for calling an API. Endpoints vary depending on services and regions. You can query the endpoints of a service from "Regions and Endpoints".

Table 1 lists the endpoints of CodeArts Deploy. Select a desired one based on the service requirements.

Table 1-1 CodeArts Deploy endpoints

Region Name	Region	Endpoint	Protocol
EU-Dublin	eu-west-101	codearts-deploy.eu-west-101.myhuaweicloud.eu	HTTPS

1.4 Concepts

- Account

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

- User

  A user is created using a domain to use cloud services. Each user has its own identity credentials (password and access keys).

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

- Region

  Regions are divided from the dimensions of geographical location and network latency. Public services, such as Elastic Cloud Server (ECS), Elastic Volume Service (EVS), Object Storage Service (OBS), Virtual Private Cloud (VPC), Elastic IP (EIP), and Image Management Service (IMS), are shared within the same region. Regions are classified into universal and dedicated regions. A universal region provides universal cloud services for common tenants. A dedicated region provides specific services for specific tenants.

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

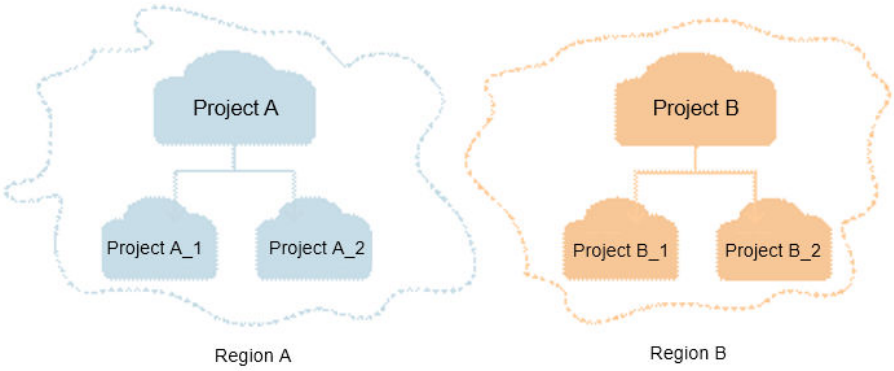
- Availability zone

  An availability zone (AZ) contains one or more physical data centers. Each AZ has independent cooling, fire extinguishing, moisture-proof, and electricity facilities. Within an AZ, computing, network, storage, and other resources are logically divided into multiple clusters. AZs within a region are interconnected using high-speed optical fibers to support cross-AZ high-availability systems.

- Project

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

Figure 1-1 Project isolation model



You can obtain the project ID on the **My Credentials** page.

2 API Overview

Table 2-1 CodeArts Deploy API Overview

Type	API	Description
Host cluster management	**Creating a Host Cluster (Recommended)**	Creates a host cluster in a project.
	Querying a Host Cluster List (Recommended)	Queries the host cluster list based on conditions.
	Querying a Host Cluster (Recommended)	Queries details about a host cluster by ID.
Host management	**Creating a Host (Recommended)**	Creates a host in a specified host cluster.
	Querying a Host List (Recommended)	Queries the host list in a specified host cluster by ID.
	Querying Host Details (Recommended)	Queries host details by host ID.
Application management	**Obtaining an Application List (Recommended)**	Queries the application list in a project.
	Creating an Application (Recommended)	Creates an application using a template.
	Deploying an Application	Deploys an application by deployment task ID.

Type	API	Description
	Obtaining Application Details (Recommended)	Obtains application details by deployment task ID.
	Deleting an Application (Recommended)	Deletes an application by deployment task ID.
	Querying the Historical Deployment Records of a Specified Application in a Project by the Start Time and End Time	Queries the historical deployment records of a specified application in a project based on the start time and end time.
	Querying Execution Parameters of a Deployment Record	Deploys an application by deployment task ID.
Execution record measurement	Obtaining the Success Rate of Deployed Applications in a Specified Project	Obtains the success rate of deployed applications in a specified project.
	Obtaining the Success Rate of Deployed Applications in a Specified Application	Obtains the execution success rate of deployed applications in a specified task.
Environment management	Creating an Environment Under an Application	Creates an environment in the target application.
	Querying the Environment List of an Application	Queries the environment list of a target application.
	Deleting an Environment from an Application	Deletes a target environment of an application.
	Querying the Details of an Environment	Queries details about a target environment of an application.
	Importing a Host in the Environment	Imports a host to a target environment.

Type	API	Description
	Deleting a Host from an Environment	Deletes a host from a target environment.

3 Calling APIs

3.1 Making an API Request

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

Request URI

The format of a request URI is as follows:

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

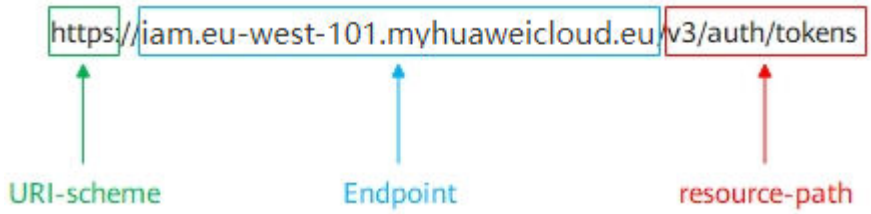
Although a request URI is included in the request header, most programming languages or frameworks require the request URI to be transmitted separately.

- **URI-scheme**: Protocol used to transmit requests. All APIs use HTTPS.
- **Endpoint**: Domain name or IP address of the server bearing the REST service endpoint. Obtain the value from **Regions and Endpoints**.
- **resource-path**: Access path of an API for performing a specified operation. Obtain the value from the URI of an API. For example, the **resource-path** of the API for obtaining a user token is **/v3/auth/tokens**.
- **query-string**: optional query parameter. Ensure that a question mark (?) is included before a query parameter that is in the format of "Parameter name=Parameter value". For example, **? limit=10** indicates that a maximum of 10 data records will be displayed.

For example, to obtain the token of IAM in the **EU-Dublin** region, obtain the endpoint **(iam.eu-west-101.myhuaweicloud.eu)** of this region and the **resource-path** (**/v3/auth/tokens**) in the URI of the API for **obtaining a user token**. Then, construct the URI as follows:

```
https://iam.eu-west-101.myhuaweicloud.eu/v3/auth/tokens
```


Figure 3-1 Example URI



NOTE

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

Request Methods

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

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

For example, in the case of the URI for **obtaining a user token**, the request method is **POST**. The request is as follows:

```
POST https://iam.eu-west-101.myhuaweicloud.eu/v3/auth/tokens
```

Request Header

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

Common request header fields:

- **Content-Type**: specifies the request body type or format. This field is mandatory and its default value is **application/json**. Other values of this field will be provided for specific APIs if any.
- **X-Auth-Token**: A user token only for token-based API authentication. The user token is a response to the API used to **obtain a user token**. This API is the only one that does not require authentication.

> **NOTE**
>
> In addition to supporting token-based authentication, public cloud APIs also support authentication using AK/SK. During AK/SK-based authentication, an SDK is used to sign the request, and the **Authorization** (signature information) and **X-Sdk-Date** (time when the request is sent) header fields are automatically added to the request.
>
> For more information, see **AK/SK-based Authentication**.

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

```
POST https://iam.eu-west-101.myhuaweicloud.eu/v3/auth/tokens
Content-Type: application/json
```

Request Body

A request body is generally sent in structured format. It corresponds to **Content-Type** in the request header and transfers content except the request header.

The request body varies according to APIs. Certain APIs do not require the request body, such as GET and DELETE.

In the case of the API used to **obtain a user token**, the request parameters and parameter description can be obtained from the API request. The following example request has a body included. Replace ***username***, ***domainname***, ********, and ***xxxxxxxxxx*** with the actual values. ***username*** indicates the username, ***domainname*** indicates the name of the account to which the user belongs, ******** indicates the login password, and ***xxxxxxxxxx*** indicates the project name, such as **eu-west-101**. You can obtain the value from **Regions and Endpoints**.

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

```
POST https://iam.eu-west-101.myhuaweicloud.eu/v3/auth/tokens
Content-Type: application/json

{
    "auth": {
        "identity": {
            "methods": [
                "password"
            ],
            "password": {
                "user": {
                    "name": "username",
                    "password": "********",
                    "domain": {
                        "name": "domainname"
                    }
                }
            }
        },
        "scope": {
            "project": {
                "name": "xxxxxxxx"
            }
```



```
    }
  }
}
```

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

3.2 Authentication

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

- Token-based authentication: Requests are authenticated using a token.
- AK/SK-based authentication: Requests are authenticated by encrypting the request body using an AK/SK pair.

Token-based Authentication

NOTE

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

A token specifies temporary permissions in a computer system. During API authentication using a token, the token is added to requests to get permissions for calling the API.

When calling the API to **obtain a user token**, you must set **auth.scope** in the request body to **project**.

```
{
    "auth": {
        "identity": {
            "methods": [
                "password"
            ],
            "password": {
                "user": {
                    "name": "username",
                    "password": "********",
                    "domain": {
                        "name": "domainname"
                    }
                }
            }
        },
        "scope": {
            "project": {
                "name": "xxxxxxxx"
            }
        }
    }
}
```

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

```
GET https://iam.eu-west-101.myhuaweicloud.com/v3/auth/projects
```



```
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

AK/SK-based Authentication

NOTE

AK/SK authentication supports API requests with a body no larger than 12 MB. For API requests with a larger body, use token authentication.

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

- AK: access key ID. It is a unique ID associated with an SK. AK is used together with SK to sign requests.
- SK: secret access key. It is used together with an access key ID to identify a sender who initiates a request and to cryptographically sign requests, preventing the request from being modified.

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

NOTICE

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

3.3 Response

Status Code

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

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

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

Response Header

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

Figure 3-2 shows the response header fields for the API used to **obtain a user token**. The **x-subject-token** header field is the desired user token. This token can then be used to authenticate the calling of other APIs.

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

Response Body

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

For the API used to **obtain a user token**, the response body is as follows: The following is part of the response body for the API used to obtain a user token:

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

                        "region_id": "eu-west-101",
.....
```

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

```
{
    "error_msg": "The format of message is error",
    "error_code": "AS.0001"
}
```

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

4 APIs

4.1 Host Cluster Management

4.1.1 Creating a Host Cluster (Recommended)

Function

This API is used to create a host cluster in a project.

URI

POST /v1/resources/host-groups

Request Parameters

Table 4-1 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). Possible values: application/json;charset=utf-8 application/json Default: **application/json;charset=utf-8** Enumeration values: • **application/json;charset=utf-8** • **application/json**

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling an IAM API. The value of X-Subject-Token in the response header is the user token. Minimum: **0** Maximum: **20000**

Table 4-2 Request body parameters

Parameter	Mandatory	Type	Description
name	Yes	String	Host cluster name. Minimum: **3** Maximum: **128**
project_id	Yes	String	Project ID. For details, see **Obtaining a Project ID**.
os	Yes	String	Operating system: windows and linux. Enumeration values: • **windows** • **linux**
slave_cluster_id	No	String	Slave cluster ID. If the value is null, the default slave cluster is used. If slave is user-defined, the slave cluster ID is used.
description	No	String	Description. Minimum: **0** Maximum: **500**
is_proxy_mode	Yes	Integer	Whether the host cluster is in poxy access mode. 1: yes; 0: no. Enumeration values: • **0** • **1**

Response Parameters

Status code: 200

Table 4-3 Response body parameters

Parameter	Type	Description
id	String	Host cluster ID.
status	String	Request status.

Example Requests

When creating a host cluster, you need to enter basic information, including the host cluster name, description, operating system, and whether be proxy access mode.

```
https://{endpoint}/v1/resources/host-groups

{
  "name" : "test123",
  "description" : "",
  "project_id" : "6039d4480efc4dddb178abff98719913",
  "os" : "linux",
  "slave_cluster_id" : "",
  "is_proxy_mode" : 1
}
```

Example Responses

Status code: 200

OK: The request is successful.

```
{
  "status" : "success",
  "id" : "f3938bd63e354d2bb9d9cf7b5dc3bf95"
}
```

Status Codes

Status Code	Description
200	OK: The request is successful.

Error Codes

See **Error Codes**.

4.1.2 Querying a Host Cluster List (Recommended)

Function

This API is used to query the host cluster list by conditions.

URI

GET /v1/resources/host-groups

Table 4-4 Query Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. Minimum: **32** Maximum: **32**
name	No	String	Fuzzy search information about the host cluster. Minimum: **1** Maximum: **256**
os	No	String	Operating system: windows and linux. Enumeration values: • **windows** • **linux**
page_index	No	Integer	Page number. Minimum: **0**
page_size	No	Integer	Number of items displayed on each page. The default value is 10. Minimum: **1** Maximum: **1000**
sort_field	No	String	Sorting field: nick_name|name|owner_name|create_time. If this parameter is left blank, the default sorting mode is used.
sort_type	No	String	Sorting mode: DESC and ASC. The default value is DESC. Enumeration values: • **DESC** • **ASC**
is_proxy_mode	No	Integer	Whether a proxy host is used.
slave_cluster_id	No	String	Custom resource pool ID.

Request Parameters

Table 4-5 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling an IAM API. The value of X-Subject-Token in the response header is the user token. Minimum: **0** Maximum: **20000**

Response Parameters

Status code: 200

Table 4-6 Response body parameters

Parameter	Type	Description
status	String	Request status.
total	Integer	Number of host clusters. Minimum: **0** Maximum: **1000**
result	Array of **HostClusterInfo** objects	Response body of host cluster details. Array Length: **0 - 1000**

Table 4-7 HostClusterInfo

Parameter	Type	Description
id	String	Host cluster ID. Minimum: **32** Maximum: **32**
host_count	Integer	Number of hosts in a cluster. A maximum of 200 hosts can be added to a host cluster. Minimum: **0** Maximum: **200**
name	String	Host cluster name.

Parameter	Type	Description
project_id	String	Project ID. For details, see **Obtaining a Project ID**.
os	String	Operating system: windows and linux.
slave_cluster_id	String	Slave cluster ID. If the value is null, the default slave cluster is used. If slave is user-defined, the slave cluster ID is used.
created_by	**UserInfo** object	User information.
description	String	Description. Minimum: **0** Maximum: **500**
permission	**PermissionClusterDetail** object	Host cluster permission details.
nick_name	String	Creator name.
env_count	Integer	Number of environments.

Table 4-8 UserInfo

Parameter	Type	Description
user_id	String	User ID.
user_name	String	Username.

Table 4-9 PermissionClusterDetail

Parameter	Type	Description
can_view	Boolean	Whether you have the view permission.
can_edit	Boolean	Whether you have the edit permission.
can_delete	Boolean	Whether you have the deletion permission.
can_add_host	Boolean	Whether you have the permission to add hosts.
can_manage	Boolean	Whether you have permission to edit the host cluster permission matrix.

Example Requests

```
https://{endpoint}/v1/resources/host-groups?
project_id=5d091b14d7f54a139db644092fdc415c&page_index=1&page_size=10&sort_field=name&sort_type=ASC
```

Example Responses

Status code: 200

OK: The request is successful.


```
{
  "status" : "success",
  "total" : 1,
  "result" : [ {
    "name" : "testwyk",
    "description" : "11122211",
    "os" : "linux",
    "nick_name" : "A-B Side Account",
    "id" : "ab7647b0863c4e969c8949d38d591339",
    "project_id" : "6039d4480efc4dddb178abff98719913",
    "permission" : {
      "can_view" : true,
      "can_edit" : true,
      "can_delete" : true,
      "can_add_host" : true,
      "can_manage" : true
    },
    "created_by" : {
      "user_id" : "6baa7454109d47c192f22078fe6cda20",
      "user_name" : "devcloud_devcloud_l00490255_01"
    },
    "env_count" : 1,
    "slave_cluster_id" : ""
  } ]
}
```


Status Codes

Status Code	Description
200	OK: The request is successful.

Error Codes

See **Error Codes**.

4.1.3 Querying a Host Cluster (Recommended)

Function

This API is used to query details about a host cluster of a specified ID.

URI

GET /v1/resources/host-groups/{group_id}

Table 4-10 Path Parameters

Parameter	Mandatory	Type	Description
group_id	Yes	String	Host cluster ID.

Request Parameters

Table 4-11 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling an IAM API. The value of X-Subject-Token in the response header is the user token. Minimum: **0** Maximum: **20000**

Response Parameters

Status code: 200

Table 4-12 Response body parameters

Parameter	Type	Description
status	String	Request status. Minimum: **0** Maximum: **1000**
result	**HostClusterInfoDetailDetail** object	Host cluster information.

Table 4-13 HostClusterInfoDetailDetail

Parameter	Type	Description
id	String	Host cluster ID. Minimum: **32** Maximum: **32**
name	String	Host cluster name.
os	String	Operating system: windows and linux.

Parameter	Type	Description
slave_cluster_id	String	Slave cluster ID. If the value is null, the default slave cluster is used. If slave is user-defined, the slave cluster ID is used.
created_by	**UserInfo** object	User information.
description	String	Description. Minimum: **0** Maximum: **500**
permission	**PermissionClusterDetail** object	Host cluster permission details.
nick_name	String	Creator name.
is_proxy_mode	Integer	Whether the proxy mode is used.
created_time	String	Creation time.
updated_time	String	Update time.

Table 4-14 UserInfo

Parameter	Type	Description
user_id	String	User ID.
user_name	String	Username.

Table 4-15 PermissionClusterDetail

Parameter	Type	Description
can_view	Boolean	Whether you have the view permission.
can_edit	Boolean	Whether you have the edit permission.
can_delete	Boolean	Whether you have the deletion permission.
can_add_host	Boolean	Whether you have the permission to add hosts.
can_manage	Boolean	Whether you have permission to edit the host cluster permission matrix.

Example Requests

```
https://{endpoint}/v1/resources/host-groups/ab7647b0863c4e969c8949d38d591339
```


Example Responses

Status code: 200

OK: The request is successful.


```
{
  "status" : "success",
  "result" : {
    "id" : "ab7647b0863c4e969c8949d38d591339",
    "name" : "test",
    "description" : "11122211",
    "os" : "linux",
    "created_by" : {
      "user_id" : "6baa7454109d47c192f22078fe6cda20",
      "user_name" : "devcloud_devcloud_l00490255_01"
    },
    "permission" : {
      "can_view" : true,
      "can_edit" : true,
      "can_delete" : true,
      "can_add_host" : true,
      "can_manage" : true
    },
    "is_proxy_mode" : 0,
    "slave_cluster_id" : "",
    "nick_name" : "A-B Side Account",
    "created_time" : "2021-04-01 17:05:53",
    "updated_time" : "2021-04-21 14:29:14"
  }
}
```


Status Codes

Status Code	Description
200	OK: The request is successful.

Error Codes

See **Error Codes**.

4.2 Host Management

4.2.1 Creating a Host (Recommended)

Function

This API is used to create a host in a specified host cluster.

URI

POST /v1/resources/host-groups/{group_id}/hosts

Table 4-16 Path Parameters

Parameter	Mandatory	Type	Description
group_id	Yes	String	Host cluster ID.

Request Parameters

Table 4-17 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). Possible values: application/json;charset=utf-8 application/json Default: **application/json;charset=utf-8** Enumeration values: • **application/json;charset=utf-8** • **application/json**
X-Auth-Token	Yes	String	User token. It can be obtained by calling an IAM API. The value of X-Subject-Token in the response header is the user token. Minimum: **0** Maximum: **20000**

Table 4-18 Request body parameters

Parameter	Mandatory	Type	Description
host_name	Yes	String	Host name. Minimum: **3** Maximum: **128**
ip	Yes	String	Enter an elastic IP address, for example, 161.17.101.12.
port	Yes	Integer	SSH port, for example, 22.

Parameter	Mandatory	Type	Description
os	Yes	String	Operating system: Windows or Linux, which must be the same as that of the host cluster. Enumeration values: • **windows** • **linux**
as_proxy	Yes	Boolean	Whether a proxy host is used.
proxy_host_id	No	String	Proxy ID.
authorization	Yes	**HostAuthorizationBody** object	Log in to the host for authentication by password or key.
install_icagent	No	Boolean	Application Operations Management (AOM) is enabled for free to provide metric monitoring, log query, and alarm functions. (The ICAgent is automatically installed and supports only Huawei Cloud Linux hosts.)

Table 4-19 HostAuthorizationBody

Parameter	Mandatory	Type	Description
username	Yes	String	Username. The value can contain letters, digits, and hyphens (-). Minimum: **3** Maximum: **128**
password	No	String	Password. When the authentication type is 0, the password is mandatory.
private_key	No	String	Key. When the authentication type is 1, the key is mandatory. Minimum: **1** Maximum: **5000**

Parameter	Mandatory	Type	Description
trusted_type	Yes	Integer	Authentication type. 0 indicates password authentication, and 1 indicates key authentication. Enumeration values: • **0** • **1**

Response Parameters

Status code: 200

Table 4-20 Response body parameters

Parameter	Type	Description
status	String	Status.
id	String	Host ID.

Example Requests

When creating a host, you need to enter the basic information about the host, including the host name, IP address, port number, username, and password.

```
https://{endpoint}/v1/resources/host-groups/ab7647b0863c4e969c8949d38d591339/hosts

{
  "host_name" : "100.101.28.215",
  "ip" : "100.101.28.215",
  "port" : "22",
  "os" : "linux",
  "as_proxy" : false,
  "proxy_host_id" : "",
  "authorization" : {
    "username" : "root",
    "password" : "*****",
    "private_key" : "",
    "trusted_type" : 0
  },
  "install_icagent" : true
}
```

Example Responses

Status code: 200

OK: The request is successful.

```
{
  "status" : "success",
  "id" : "300d6d2e53624d0da08b182099ad10f7"
}
```


Status Codes

Status Code	Description
200	OK: The request is successful.

Error Codes

See **Error Codes**.

4.2.2 Querying a Host List (Recommended)

Function

This API is used to query host list in a specified host cluster of a specified ID.

URI

GET /v1/resources/host-groups/{group_id}/hosts

Table 4-21 Path Parameters

Parameter	Mandatory	Type	Description
group_id	Yes	String	Project ID. Minimum: **32** Maximum: **32**

Table 4-22 Query Parameters

Parameter	Mandatory	Type	Description
key_field	No	String	Fuzzy search information about the host name. Minimum: **1** Maximum: **256**
environment_id	No	String	Environment ID. Minimum: **32** Maximum: **32**
page_index	No	Integer	Page number. Minimum: **0**

Parameter	Mandatory	Type	Description
page_size	No	Integer	Number of items displayed on each page. The default value is 10. Minimum: **1** Maximum: **1000**
sort_key	No	String	Sorting field: as_proxy|host_name|owner_name. If this parameter is left blank, the default sorting mode is used.
sort_dir	No	String	Sorting mode: DESC and ASC. The default value is DESC. Enumeration values: • **DESC** • **ASC**
as_proxy	No	Boolean	Whether a proxy host is used.

Request Parameters

Table 4-23 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling an IAM API. The value of X-Subject-Token in the response header is the user token. Minimum: **0** Maximum: **20000**

Response Parameters

Status code: 200

Table 4-24 Response body parameters

Parameter	Type	Description
total	Integer	Host quantity. Minimum: **0** Maximum: **200**

Parameter	Type	Description
status	String	Request status.
result	Array of **HostInfo** objects	Host information list. Array Length: **0 - 200**

Table 4-25 HostInfo

Parameter	Type	Description
uuid	String	Host ID.
ip	String	Host IP address.
os	String	Host OS.
port	Integer	Port.
authorization	**HostAuthorizationBody** object	Log in to the host for authentication by password or key.
permission	**PermissionHostDetailNew** object	Host-related permission details.
host_name	String	Host name.
as_proxy	Boolean	Whether a proxy host is used.
group_id	String	Host cluster ID.
proxy_host_id	String	Proxy ID.
owner_id	String	Host owner ID.
owner_name	String	Host owner name.
proxy_host	**HostInfo** object	Proxy details.
connection_status	String	Connectivity status.
create_time	String	Creation time.
lastest_connection_time	String	Last connection time.
connection_result	String	Connectivity verification result.
nick_name	String	Host owner alias.
import_status	String	Import status.

Parameter	Type	Description
env_count	Integer	Number of associated environments.

Table 4-26 HostAuthorizationBody

Parameter	Type	Description
username	String	Username. The value can contain letters, digits, and hyphens (-). Minimum: **3** Maximum: **128**
password	String	Password. When the authentication type is 0, the password is mandatory.
private_key	String	Key. When the authentication type is 1, the key is mandatory. Minimum: **1** Maximum: **5000**
trusted_type	Integer	Authentication type. 0 indicates password authentication, and 1 indicates key authentication. Enumeration values: • **0** • **1**

Table 4-27 PermissionHostDetailNew

Parameter	Type	Description
can_view	Boolean	Whether you have the view permission.
can_edit	Boolean	Whether you have the edit permission.
can_delete	Boolean	Whether you have the deletion permission.
can_add_host	Boolean	Whether you have the permission to add hosts.
can_copy	Boolean	Specifies whether the user has the permission to copy hosts.

Example Requests

```
https://{endpoint}/v1/resources/host-groups/317aea99cf2944fcacf88b34ef771843/hosts?
page_index=1&page_size=10&sort_key=host_name&sort_dir=ASC&as_proxy=false
```


Example Responses

Status code: 200

OK: The request is successful.


```
{
  "result" : [ {
    "host_name" : "100.101.28.203",
    "ip" : "100.101.28.203",
    "port" : 22,
    "os" : "linux",
    "authorization" : {
      "username" : "root",
      "password" : null,
      "private_key" : null,
      "trusted_type" : 0
    },
    "permission" : {
      "can_view" : true,
      "can_edit" : true,
      "can_delete" : true,
      "can_add_host" : true,
      "can_copy" : true
    },
    "uuid" : "2cc913cc9a494f09b7320801ebacad02",
    "group_id" : "ab7647b0863c4e969c8949d38d591339",
    "as_proxy" : false,
    "proxy_host_id" : "",
    "owner_id" : "6baa7454109d47c192f22078fe6cda20",
    "owner_name" : "devcloud_devcloud_l00490255_01",
    "connection_status" : "success",
    "create_time" : "2021-04-15 11:01:51",
    "connection_result" : "Connection succeeded",
    "lastest_connection_time" : "2021-04-15 11:02:00",
    "nick_name" : "A-B Side Account",
    "proxy_host" : null,
    "import_status" : null,
    "env_count" : 1
  } ],
  "total" : 1,
  "status" : "success"
}
```


Status Codes

Status Code	Description
200	OK: The request is successful.

Error Codes

See **Error Codes**.

4.2.3 Querying Host Details (Recommended)

Function

This API is used to query host details of a specified ID.

URI

GET /v1/resources/host-groups/{group_id}/hosts/{host_id}

Table 4-28 Path Parameters

Parameter	Mandatory	Type	Description
group_id	Yes	String	Host cluster ID.
host_id	Yes	String	Host ID.

Request Parameters

Table 4-29 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling an IAM API. The value of X-Subject-Token in the response header is the user token. Minimum: **0** Maximum: **20000**

Response Parameters

Status code: 200

Table 4-30 Response body parameters

Parameter	Type	Description
status	String	Request status.
result	**HostInfoDetail** object	Host details.

Table 4-31 HostInfoDetail

Parameter	Type	Description
host_id	String	Host ID.
ip	String	Host IP address.
os	String	Host OS.

Parameter	Type	Description
port	Integer	Port number.
authorization	**HostAuthorizationBody** object	Log in to the host for authentication by password or key.
permission	**PermissionHostDetailNew** object	Host-related permission details.
group_id	String	Host cluster ID.
host_name	String	Host name.
as_proxy	Boolean	Whether a proxy host is used.
proxy_host_id	String	Proxy ID.
owner_name	String	Host owner name.
proxy_host	**HostInfoDetail** object	Proxy details.
connection_status	String	Connectivity status.
create_time	String	Creation time.
update_time	String	Update time.
lastest_connection_time	String	Last connection time.
connection_result	String	Connectivity verification result.
install_icagent	Boolean	Application Operations Management (AOM) is enabled for free to provide metric monitoring, log query, and alarm functions. (The ICAgent is automatically installed and supports only Huawei Cloud Linux hosts.)
nick_name	String	Creator alias.

Table 4-32 HostAuthorizationBody

Parameter	Type	Description
username	String	Username. The value can contain letters, digits, and hyphens (-). Minimum: **3** Maximum: **128**

Parameter	Type	Description
password	String	Password. When the authentication type is 0, the password is mandatory.
private_key	String	Key. When the authentication type is 1, the key is mandatory. Minimum: **1** Maximum: **5000**
trusted_type	Integer	Authentication type. 0 indicates password authentication, and 1 indicates key authentication. Enumeration values: • **0** • **1**

Table 4-33 PermissionHostDetailNew

Parameter	Type	Description
can_view	Boolean	Whether you have the view permission.
can_edit	Boolean	Whether you have the edit permission.
can_delete	Boolean	Whether you have the deletion permission.
can_add_host	Boolean	Whether you have the permission to add hosts.
can_copy	Boolean	Specifies whether the user has the permission to copy hosts.

Example Requests

```
https://{endpoint}/v1/resources/host-groups/ab7647b0863c4e969c8949d38d591339/hosts/
300d6d2e53624d0da08b182099ad10f7
```

Example Responses

Status code: 200

OK: The request is successful.

```
{
  "result" : {
    "host_id" : "300d6d2e53624d0da08b182099ad10f7",
    "ip" : "100.101.28.215",
    "port" : 22,
    "os" : "linux",
    "authorization" : {
      "username" : "root",
      "password" : null,
      "private_key" : null,
      "trusted_type" : 0
```



```
  },
  "permission" : {
    "can_view" : true,
    "can_edit" : true,
    "can_delete" : true,
    "can_add_host" : true,
    "can_copy" : true
  },
  "group_id" : "ab7647b0863c4e969c8949d38d591339",
  "host_name" : "100.101.28.215",
  "as_proxy" : false,
  "proxy_host_id" : null,
  "owner_name" : "devcloud_devcloud_l00490255_01",
  "proxy_host" : null,
  "connection_status" : "success",
  "install_icagent" : false,
  "create_time" : "2021-05-13 09:35:41",
  "update_time" : "2021-05-13 09:35:41",
  "connection_result" : "Connection succeeded",
  "lastest_connection_time" : "2021-05-13 09:36:11",
  "nick_name" : "A-B Side Account"
 },
 "status" : "success"
}
```


Status Codes

Status Code	Description
200	OK: The request is successful.

Error Codes

See **Error Codes**.

4.3 Application Management

4.3.1 Obtaining an Application List (Recommended)

Function

This API is used to query the application list in a project.

URI

POST /v1/applications/list

Request Parameters

Table 4-34 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). Possible values: application/json;charset=utf-8 application/json Default: **application/json;charset=utf-8** Enumeration values: • **application/json;charset=utf-8** • **application/json**
X-Auth-Token	Yes	String	User token. It can be obtained by calling an IAM API. The value of X-Subject-Token in the response header is the user token. Minimum: **0** Maximum: **20000**

Table 4-35 Request body parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. Minimum: **32** Maximum: **32**
page	Yes	Integer	Page number, indicating that the query starts from this page. The value of page is no less than 1.
size	Yes	Integer	Number of items displayed on each page. The value of size is no more than 100.
sort_name	No	String	Name of the sorting field. Currently, only name and startTime are supported. Enumeration values: • **name** • **startTime**

Parameter	Mandatory	Type	Description
sort_by	No	String	Sorting sequence: ascending order (ASC) and descending order (DESC).
states	No	Array of strings	Application status list. The following statuses can be queried: abort, failed, not_started, pending, running, succeeded, timeout, and not_executed. Enumeration values: • **abort** • **failed** • **not_started** • **pending** • **running** • **succeeded** • **timeout** • **not_executed**
group_id	No	String	Application group ID. Enter no_grouped to query ungrouped applications.

Response Parameters

Status code: 200

Table 4-36 Response body parameters

Parameter	Type	Description
total_num	Integer	Total number.
result	Array of **AppExecutionInfo** objects	Application list array.

Table 4-37 AppExecutionInfo

Parameter	Type	Description
id	String	Application ID.

Parameter	Type	Description
name	String	Application name. Minimum: **3** Maximum: **128**
duration	String	Deployment time.
project_id	String	Project ID. For details, see **Obtaining a Project ID**.
project_name	String	Project name. Minimum: **3** Maximum: **128**
is_care	Boolean	Whether you have followed the application.
can_modify	Boolean	Whether you have the edit permission.
can_delete	Boolean	Whether you have the deletion permission.
can_view	Boolean	Whether you have the view permission.
can_execute	Boolean	Whether you have the deployment permission.
can_copy	Boolean	Whether you have the copy permission.
can_manage	Boolean	Whether you have permission to edit the application permission matrix.
can_create_env	Boolean	Whether you have the the permission to create an environment.
deploy_system	String	Deployment type. Options: deployTemplate, ansible, and shell.
create_user_id	String	User ID of the application creator.
create_tenant_id	String	Tenant ID of the application creator.
create_time	String	Creation time. Minimum: **3** Maximum: **128**
update_time	String	Modification time. Minimum: **3** Maximum: **128**
execution_time	String	Last deployment time. Minimum: **3** Maximum: **128**
end_time	String	Deployment end time.

Parameter	Type	Description
execution_state	String	Deployment status.
release_id	Integer	Deployment record sequence number.
executor_id	String	Deployer ID.
executor_nick_name	String	Deployer name.
arrange_infos	Array of **TaskBaseResponseBody** objects	Deployment task information.

Table 4-38 TaskBaseResponseBody

Parameter	Type	Description
id	String	Deployment task ID.
state	String	Deployment task status.
deploy_system	String	Deployment task type.

Example Requests

This API is used to obtain an application list.

```
https://{endpoint}/v1/applications/list

{
  "project_id" : "6039d4480efc4dddb178abff98719913",
  "page" : 1,
  "size" : 10
}
```

Example Responses

Status code: 200

OK: The request is successful.

```
{
  "result" : [ {
    "id" : "cb439d016d8641c8a44c177a121fad15",
    "name" : "Test",
    "duration" : "00:00:17",
    "project_id" : "1ff8aa6dda4643bd9cbdbb588fb24bde",
    "project_name" : "Project 1.",
    "is_care" : false,
    "can_modify" : true,
    "can_delete" : true,
    "can_view" : true,
```



```
  "can_execute" : true,
  "can_copy" : true,
  "can_manage" : false,
  "can_create_env" : false,
  "create_user_id" : "04ec4661a8df4359b50980a9c958c86d",
  "create_tenant_id" : "208fbb09068e4820b9209ef9ff4da73d",
  "create_time" : "2023-07-05 20:34:40.0",
  "update_time" : "2023-08-02 14:20:30.0",
  "execution_time" : "2023-08-18 09:40:16",
  "end_time" : "2023-08-18 09:40:33",
  "execution_state" : "failed",
  "release_id" : 4,
  "executor_id" : "6baa7454109d47c192f22078fe6cda20",
  "executor_nick_name" : "Test Account",
  "arrange_infos" : [ {
    "id" : "e700f15965694253940502911220d76b",
    "state" : "failed",
    "deploy_system" : "deployTemplate"
  } ]
 } ],
 "total_num" : 1
}
```


Status Codes

Status Code	Description
200	OK: The request is successful.

Error Codes

See **Error Codes**.

4.3.2 Creating an Application (Recommended)

Function

This API is used to create an application.

URI

POST /v1/applications

Request Parameters

Table 4-39 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). Possible values: application/json;charset=utf-8 application/json Default: **application/json;charset=utf-8** Enumeration values: • **application/json;charset=utf-8** • **application/json**
X-Auth-Token	Yes	String	User token. It can be obtained by calling an IAM API. The value of X-Subject-Token in the response header is the user token. Minimum: **0** Maximum: **20000**

Table 4-40 Request body parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID.
name	Yes	String	Application name. Minimum: **3** Maximum: **128**
description	No	String	Description.
is_draft	Yes	Boolean	Whether the application is in draft status.
create_type	Yes	String	Creation type. There is only one creation type template, that is, creation based on the template. Enumeration values: • **template**
slave_cluster_id	No	String	Custom slave resource pool ID.

Parameter	Mandatory	Type	Description
trigger	No	**TaskTriggerVO** object	Deployment task triggering scenarios.
arrange_infos	No	Array of **TaskV2RequestBody** objects	Deployment task list information.

Table 4-41 TaskTriggerVO

Parameter	Mandatory	Type	Description
trigger_source	No	String	Scenario where a deployment task can be executed. 0 indicates that all execution requests can be triggered. 1 indicates that only pipeline can be triggered.
artifact_source_system	No	String	When a task can be triggered only by the pipeline, source information transferred by the pipeline only supports CodeArts Artifact.
artifact_type	No	String	When a task can be triggered only by the pipeline, the artifact type is generic and docker for the pipeline source.

Table 4-42 TaskV2RequestBody

Parameter	Mandatory	Type	Description
template_id	No	String	Template ID.
operation_list	No	Array of **DeployV2OperationsDO** objects	Deployment orchestration list information.

Table 4-43 DeployV2OperationsDO

Parameter	Mandatory	Type	Description
name	No	String	Step name.

Parameter	Mandatory	Type	Description
description	No	String	Step description.
code	No	String	Download URL.
params	No	String	Parameter.
entrance	No	String	Entry function.
version	No	String	Version.
module_id	No	String	Module ID.

Response Parameters

Status code: 200

Table 4-44 Response body parameters

Parameter	Type	Description
status	String	Request success or failure status.
result	**AppBaseResponse** object	Response body for creating or deleting an application

Table 4-45 AppBaseResponse

Parameter	Type	Description
id	String	Created application ID.
name	String	This API is used to create an application name.
region	String	Region to which the application belongs.
arrange_infos	Array of **TaskBaseBody** objects	Deployment task list.

Table 4-46 TaskBaseBody

Parameter	Type	Description
id	String	Created deployment task ID.

Example Requests

This API is used to create an application.

```
https://{endpoint}/v1/applications

{
  "name" : "deployenv20230822192953",
  "project_id" : "55837d272adf4eee90319800e2da6961",
  "description" : "This API is used to create an application using a blank template.",
  "trigger" : {
    "trigger_source" : 0,
    "artifact_source_system" : "",
    "artifact_type" : ""
  },
  "slave_cluster_id" : "",
  "create_type" : "template",
  "is_draft" : true,
  "arrange_infos" : [ ]
}
```

Example Responses

Status code: 200

OK: The request is successful.

```
{
  "result" : {
    "id" : "e700f15965694253940502911220d76b",
    "name" : "testApp",
    "region" : "cn-north-7",
    "arrange_infos" : [ {
      "id" : "e700f15965694253940502911220d76b"
    } ]
  },
  "status" : "success"
}
```

Status Codes

Status Code	Description
200	OK: The request is successful.

Error Codes

See **Error Codes**.

4.3.3 Deploying an Application

Function

This API is used to deploy an application of a specified ID.

URI

POST /v2/tasks/{task_id}/start

Table 4-47 Path Parameters

Parameter	Mandatory	Type	Description
task_id	Yes	String	Deployment task ID.

Request Parameters

Table 4-48 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). Possible values: application/json;charset=utf-8 application/json Default: **application/json;charset=utf-8** Enumeration values: • **application/json;charset=utf-8** • **application/json**
X-Auth-Token	Yes	String	User token. It can be obtained by calling an IAM API. The value of X-Subject-Token in the response header is the user token. Minimum: **0** Maximum: **20000**

Table 4-49 Request body parameters

Parameter	Mandatory	Type	Description
params	No	Array of **DynamicConfigInfo** objects	Parameters transferred during application deployment. Array Length: **0 - 500**
record_id	No	String	Deployment ID of the application. You can use record_id to roll back the application to the previous deployment status. Select the historical deployment record of the application and obtain it from the URL.

Parameter	Mandatory	Type	Description
trigger_source	No	String	This API is used to specify the trigger source. 0 indicates that no deployment request source is restricted. 1 indicates that deployment can be triggered only through pipeline.

Table 4-50 DynamicConfigInfo

Parameter	Mandatory	Type	Description
key	No	String	Parameter name transferred during application deployment. Minimum: **1** Maximum: **128**
value	No	String	Parameter value transferred during application deployment. Minimum: **1** Maximum: **8192**
type	No	String	Type. If a dynamic parameter is set, the type is mandatory. Enumeration values: • **text** • **host_group** • **encrypt** • **enum**

Response Parameters

Status code: 200

Table 4-51 Response body parameters

Parameter	Type	Description
id	String	Deployment record ID.
task_id	String	Deployment task ID.

Parameter	Type	Description
job_name	String	Name of the task to be executed Minimum: **45** Maximum: **55**
app_component_list	Array of **AppComponentDao** objects	Mapping between Applications and AOM Application Components

Table 4-52 AppComponentDao

Parameter	Type	Description
task_id	String	Deployment task ID.
app_id	String	AOM application ID.
app_name	String	AOM application name.
comp_id	String	AOM application component ID.
comp_name	String	AOM application component name. Minimum: **0** Maximum: **128**
domain_id	String	Tenant ID.
region	String	Site information. Minimum: **1** Maximum: **256**
state	String	Whether the AOM application component takes effect. 0 indicates that the component is initialized. 1 indicates that the execution is successful and the component has taken effect. Minimum: **1** Maximum: **32**

Example Requests

This API is used to deploy an application by deployment task ID.

```
https://{endpoint}/v2/tasks/d2dc947ec2424d8789bb3984bb3adf45/start

{
  "params" : [ ]
}
```


Example Responses

Status code: 200

OK: The request is successful.

```
{
  "id" : "0ee9c8e6a7dc44109541e53c6dccf47c",
  "task_id" : "d2dc947ec2424d8789bb3984bb3adf45",
  "job_name" : "job_0ee9c8e6a7dc44109541e53c6dccf47c_1620810492008",
  "app_component_list" : [ ]
}
```

Status Codes

Status Code	Description
200	OK: The request is successful.

Error Codes

See **Error Codes**.

4.3.4 Obtaining Application Details (Recommended)

Function

This API is used to obtain application details of a specified ID.

URI

GET /v1/applications/{app_id}/info

Table 4-53 Path Parameters

Parameter	Mandatory	Type	Description
app_id	Yes	String	Application ID.

Request Parameters

Table 4-54 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling an IAM API. The value of X-Subject-Token in the response header is the user token. Minimum: **0** Maximum: **20000**

Response Parameters

Status code: 200

Table 4-55 Response body parameters

Parameter	Type	Description
result	**AppDetailInfo** object	Application details.
status	String	Request success or failure status.

Table 4-56 AppDetailInfo

Parameter	Type	Description
id	String	Application ID.
name	String	Application name. Minimum: **3** Maximum: **128**
region	String	Region to which the application belongs.
description	String	Description. Minimum: **0** Maximum: **1024**
create_type	String	Algorithm type.
project_id	String	Project ID. For details, see **Obtaining a Project ID**.

Parameter	Type	Description
project_name	String	Project name. Minimum: **3** Maximum: **128**
slave_cluster_id	String	Slave cluster ID. If the value is null, the default slave cluster is used. If slave is user-defined, the slave cluster ID is used.
is_care	Boolean	Whether you have followed the application.
can_modify	Boolean	Whether you have the edit permission.
can_delete	Boolean	Whether you have the deletion permission.
can_view	Boolean	Whether you have the view permission.
can_execute	Boolean	Whether you have the deployment permission.
can_copy	Boolean	Whether you have the copy permission.
can_manage	Boolean	Whether you have permission to edit the application permission matrix.
can_create_env	Boolean	Whether you have the the permission to create an environment.
owner_tenant_id	String	Tenant ID of the application owner.
create_user_id	String	Username of the application creator.
create_tenant_id	String	Tenant ID of the application creator.
create_time	String	Creation time.
update_time	String	Modification time.
permission_level	String	Permission level.
arrange_infos	Array of **TaskV2Info** objects	Deployment task information.

Table 4-57 TaskV2Info

Parameter	Type	Description
id	String	Deployment task ID.

Parameter	Type	Description
name	String	Task name. Minimum: **3** Maximum: **128**
state	String	Deployment task status.
description	String	Description. Minimum: **0** Maximum: **1024**
owner	String	Owner of the deployment task.
steps	Map<String,**Step**>	Deployment procedure.
project_id	String	Project ID. For details, see **Obtaining a Project ID**.
project_name	String	Project name. Minimum: **3** Maximum: **128**
deploy_system	String	Deployment type. Options: deployTemplate, ansible, and shell.
create_time	String	Creation time.
update_time	String	Modification time.
role_id	Integer	Role ID.
is_defaut_permission	Boolean	Whether the role is a default one.
template_id	String	Template ID.
nick_name	String	Alias of the application creator. Minimum: **0** Maximum: **128**
owner_id	String	User ID of the application creator.
tenant_id	String	Tenant ID of the application creator.
tenant_name	String	Tenant name of the application creator. Minimum: **0** Maximum: **128**
slave_cluster_id	String	Slave cluster ID. If the value is null, the default slave cluster is used. If slave is user-defined, the slave cluster ID is used.
is_care	Boolean	Whether you have followed the application.

Parameter	Type	Description
can_modify	Boolean	Whether you have the edit permission.
can_delete	Boolean	Whether you have the deletion permission.
can_view	Boolean	Whether you have the view permission.
can_execute	Boolean	Whether you have the deployment permission.
can_copy	Boolean	Whether you have the copy permission.
can_manage	Boolean	Whether you have permission to edit the application permission matrix.
can_create_env	Boolean	Whether you have the the permission to create an environment.
app_component_list	Array of **AppComponentDao** objects	Application component list.
release_id	Integer	Deployment record sequence number.
app_id	String	Application ID to which the deployment task belongs.

Table 4-58 Step

Parameter	Type	Description
id	String	id
name	String	Name.
params	Map<String,String>	Parameter.
enable	Boolean	Whether the application is in enabled status.

Table 4-59 AppComponentDao

Parameter	Type	Description
task_id	String	Deployment task ID.
app_id	String	AOM application ID.
app_name	String	AOM application name.
comp_id	String	AOM application component ID.

Parameter	Type	Description
comp_name	String	AOM application component name. Minimum: **0** Maximum: **128**
domain_id	String	Tenant ID.
region	String	Site information. Minimum: **1** Maximum: **256**
state	String	Whether the AOM application component takes effect. 0 indicates that the component is initialized. 1 indicates that the execution is successful and the component has taken effect. Minimum: **1** Maximum: **32**

Example Requests

```
https://{endpoint}/v1/applications/d2dc947ec2424d8789bb3984bb3adf45/info
```

Example Responses

Status code: 200

OK: The request is successful.


```
{
  "result" : {
    "id" : "d9e0532073e2475dbed64b22e64f3b26",
    "name" : "deployenv202308211530723",
    "region" : "cn-north-7",
    "description" : "for_test",
    "create_type" : "template",
    "project_id" : "1ff8aa6dda4643bd9cbdbb588fb24bde",
    "project_name" : "Test Item",
    "slave_cluster_id" : null,
    "is_care" : false,
    "can_modify" : true,
    "can_delete" : true,
    "can_view" : true,
    "can_execute" : true,
    "can_copy" : true,
    "can_manage" : true,
    "can_create_env" : true,
    "owner_tenant_id" : "208fbb09068e4820b9209ef9ff4da73d",
    "create_user_id" : "6baa7454109d47c192f22078fe6cda20",
    "create_tenant_id" : "26a680dd72e7482eb60d2ef5513588bb",
    "create_time" : "2023-08-21 15:30:51.0",
    "update_time" : "2023-08-21 15:30:51.0",
    "permission_level" : "instance",
    "arrange_infos" : [ {
      "id" : "685a6f3b80264e7d96f2ba308f8414e5",
      "name" : "deployenv202308211530723",
      "state" : "Draft",
      "description" : "for_test",
      "owner" : "devcloud_devcloud_l00490255_01",
```



```
    "steps" : {
      "step1" : {
        "id" : null,
        "name" : "Installing Go",
        "params" : { },
        "enable" : true
      },
      "step2" : {
        "id" : null,
        "name" : "Software Package Download",
        "params" : { },
        "enable" : true
      },
      "step3" : {
        "id" : null,
        "name" : "Stopping the Go Service",
        "params" : { },
        "enable" : true
      },
      "step4" : {
        "id" : null,
        "name" : "Starting the Go Service",
        "params" : { },
        "enable" : true
      },
      "step5" : {
        "id" : null,
        "name" : "Health Test",
        "params" : { },
        "enable" : true
      }
    },
    "project_id" : "1ff8aa6dda4643bd9cbdbb588fb24bde",
    "project_name" : "Test Item",
    "deploy_system" : "deployTemplate",
    "create_time" : "2023-08-21 15:30:51",
    "update_time" : "2023-08-21 15:30:51",
    "role_id" : 0,
    "is_defaut_permission" : false,
    "template_id" : "681bd91f9d6e42cdb4cb84d6718de9fe",
    "nick_name" : "User Alias",
    "owner_id" : "6baa7454109d47c192f22078fe6cda20",
    "tenant_id" : "26a680dd72e7482eb60d2ef5513588bb",
    "tenant_name" : "devcloud_devcloud_l00490255_01",
    "slave_cluster_id" : null,
    "is_care" : false,
    "can_modify" : true,
    "can_delete" : true,
    "can_view" : true,
    "can_execute" : true,
    "can_copy" : true,
    "can_manage" : true,
    "can_create_env" : false,
    "app_component_list" : [ ],
    "release_id" : 0,
    "app_id" : "d9e0532073e2475dbed64b22e64f3b26"
  } ]
 },
 "status" : "success"
}
```


Status Codes

Status Code	Description
200	OK: The request is successful.

Error Codes

See **Error Codes**.

4.3.5 Deleting an Application (Recommended)

Function

This API is used to delete an application of a specified ID.

URI

DELETE /v1/applications/{app_id}

Table 4-60 Path Parameters

Parameter	Mandatory	Type	Description
app_id	Yes	String	Application ID.

Request Parameters

Table 4-61 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). Possible values: application/json;charset=utf-8 application/json Default: **application/json;charset=utf-8** Enumeration values: • **application/json;charset=utf-8** • **application/json**
X-Auth-Token	Yes	String	User token. It can be obtained by calling an IAM API. The value of X-Subject-Token in the response header is the user token. Minimum: **0** Maximum: **20000**

Response Parameters

Status code: 200

Table 4-62 Response body parameters

Parameter	Type	Description
status	String	Request success or failure status.
result	**AppBaseResponse** object	Response body for creating or deleting an application

Table 4-63 AppBaseResponse

Parameter	Type	Description
id	String	Created application ID.
name	String	This API is used to create an application name.
region	String	Region to which the application belongs.
arrange_infos	Array of **TaskBaseBody** objects	Deployment task list.

Table 4-64 TaskBaseBody

Parameter	Type	Description
id	String	Created deployment task ID.

Example Requests

```
https://{endpoint}/v1/applications/b024060ac00749178e72713ae82b0da2
```

Example Responses

Status code: 200

OK: The request is successful.

```
{
  "result" : {
    "id" : "20168cbc8504479d84f118ae72f87763",
    "name" : "test_app",
    "region" : "cn-north-7",
    "arrange_infos" : [ {
      "id" : "5d55203938db46939cd41a66ef2c4a52"
    } ]
  },
  "status" : "success"
}
```


Status Codes

Status Code	Description
200	OK: The request is successful.

Error Codes

See **Error Codes**.

4.3.6 Querying the Historical Deployment Records of a Specified Application in a Project by the Start Time and End Time

Function

This API is used to query the historical deployment records of a specified application in a project based on the start time and end time.

URI

GET /v2/{project_id}/task/{id}/history

Table 4-65 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details, see **Obtaining a Project ID**. Minimum: **32** Maximum: **32**
id	Yes	String	Task ID.

Table 4-66 Query Parameters

Parameter	Mandatory	Type	Description
page	Yes	Integer	Page number, indicating that the query starts from this page. The value of page is no less than 1.
size	Yes	Integer	Number of items displayed on each page. The value of size is no more than 100.

Parameter	Mandatory	Type	Description
start_date	Yes	String	Start time. The format is YYYY-MM-DD. The time range cannot exceed 30 days.
end_date	Yes	String	End time. The format is YYYY-MM-DD. The time range cannot exceed 30 days.

Request Parameters

Table 4-67 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling an IAM API. The value of X-Subject-Token in the response header is the user token. Minimum: **0** Maximum: **20000**
Content-Type	Yes	String	Message body type (format). Possible values: application/json;charset=utf-8 application/json Default: **application/json;charset=utf-8** Enumeration values: • **application/json;charset=utf-8** • **application/json**

Response Parameters

Status code: 200

Table 4-68 Response body parameters

Parameter	Type	Description
result	Array of **ExecuteRecordV2Body** objects	List of historical application deployment records.

Parameter	Type	Description
total_num	Integer	Total number of historical application deployment records between the start time and end time.

Table 4-69 ExecuteRecordV2Body

Parameter	Type	Description
duration	String	Deployment duration.
state	String	Application status.
operator	String	Operator username.
execution_id	String	Deployment record ID.
start_time	String	Start time of application deployment.
nickname	String	Operator alias.
end_time	String	End time of application deployment.
release_id	Long	Deployment record sequence number.
type	String	Type.

Example Requests

```
https://{endpoint}/v2/5ab1363a143f46aa9959a4a8c2616589/task/ad9c1d60282544d2b5a380ea22539cf1/history?page=2&size=2&start_date=2022-03-16&end_date=2022-04-15
```

Example Responses

Status code: 200

OK: The request is successful.

```
{
  "result" : [ {
    "duration" : "00:16:53",
    "state" : "succeeded",
    "type" : "install",
    "operator" : "devcloud_devcloud_l00490255_01",
    "execution_id" : "50f18ce454a64ea5a62a33d56617b831",
    "start_time" : "2022-04-15 15:03:24",
    "nickname" : "A-B Side Account",
    "end_time" : "2022-04-15 15:20:17",
    "release_id" : 20
  }, {
    "duration" : "00:15:31",
    "state" : "failed",
    "type" : "install",
    "operator" : "devcloud_devcloud_l00490255_01",
    "execution_id" : "f757fbe93d35494ba0ff73b34e2f79aa",
    "start_time" : "2022-04-15 15:03:15",
    "nickname" : "A-B Side Account",
```



```
    "end_time" : "2022-04-15 15:18:46",
    "release_id" : 19
  } ],
  "total_num" : 20
}
```

Status Codes

Status Code	Description
200	OK: The request is successful.

Error Codes

See **Error Codes**.

4.3.7 Querying Execution Parameters of a Deployment Record

Function

This API is used to query execution parameters of a deployment record.

URI

GET /v2/history/tasks/{task_id}/params

Table 4-70 Path Parameters

Parameter	Mandatory	Type	Description
task_id	Yes	String	Specifies the task ID. Minimum: **32** Maximum: **32**

Table 4-71 Query Parameters

Parameter	Mandatory	Type	Description
record_id	No	String	Execution record ID. Minimum: **32** Maximum: **32**

Request Parameters

Table 4-72 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling an IAM API. The value of X-Subject-Token in the response header is the user token. Minimum: **0** Maximum: **20000**

Response Parameters

Status code: 200

Table 4-73 Response body parameters

Parameter	Type	Description
[items]	Array of **ConfigInfo** objects	Response body for querying deployment record execution parameters

Table 4-74 ConfigInfo

Parameter	Type	Description
name	String	Parameter
type	String	Type
value	String	Value

Example Requests

```
https://{endpoint}/v1/history/tasks/8e1eb7f010d4442ca150e3a1a5d96d94/params?
record_id=8bcfde0419bf4d62b4676de99bcc7403
```

Example Responses

Status code: 200

OK: The request is successful.

```
[ {
  "name" : "service_port",
  "type" : "text",
```



```
  "value" : 8080
} ]
```

Status Codes

Status Code	Description
200	OK: The request is successful.

Error Codes

See **Error Codes**.

4.4 Deployment Record Measurement

4.4.1 Obtaining the Success Rate of Deployed Applications in a Specified Project

Function

This API is used to obtain the application deployment success rate of a specified project.

URI

GET /v2/{project_id}/metrics/success-rate

Table 4-75 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details, see **Obtaining a Project ID**.

Table 4-76 Query Parameters

Parameter	Mandatory	Type	Description
start_date	Yes	String	Left boundary (included) of the application deployment start time. The format is yyyy-MM-dd.

Parameter	Mandatory	Type	Description
end_date	Yes	String	Right boundary (included) of the application deployment start time. The format is yyyy-MM-dd. The maximum time range is one year.

Request Parameters

None

Response Parameters

Status code: 200

Table 4-77 Response body parameters

Parameter	Type	Description
success_rate	String	Success rate.
project_id	String	Project ID. For details, see **Obtaining a Project ID**.
project_name	String	Project name.
start_date	String	Left boundary (included) of the application deployment start time. The format is yyyy-MM-dd.
end_date	String	Right boundary (included) of the application deployment start time. The format is yyyy-MM-dd.
task_count	Integer	Number of queried applications.
record_count	Integer	Number of queried application deployment records.
success_record_count	Integer	Number of successful application deployment records.

Example Requests

This API is used to obtain the deployment success rate of the target application in a specified period.

```
https://{endpoint}/v2/89931e210b214b5892ea833712f0f5e0/metrics/success-rate?
start_date=2022-01-01&end_date=2022-10-26
```


Example Responses

Status code: 200

OK: The request is successful.

```
{
  "success_rate" : "34.09",
  "project_id" : "89931e210b214b5892ea833712f0f5e0",
  "project_name" : "Happy",
  "start_date" : "2022-01-01",
  "end_date" : "2022-10-26",
  "task_count" : 8,
  "record_count" : 44,
  "success_record_count" : 15
}
```

Status Codes

Status Code	Description
200	OK: The request is successful.

Error Codes

See **Error Codes**.

4.4.2 Obtaining the Success Rate of Deployed Applications in a Specified Application

Function

This API is used to obtain the application deployment success rate of a specified application.

URI

POST /v2/{project_id}/tasks/metrics/success-rate

Table 4-78 Path Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details, see **Obtaining a Project ID**.

Request Parameters

Table 4-79 Request body parameters

Parameter	Mandatory	Type	Description
start_date	Yes	String	Left boundary (included) of the application deployment start time. The format is yyyy-MM-dd.
end_date	Yes	String	Right boundary (included) of the application deployment start time. The format is YYYY-MM-DD. The maximum time range is one year.
task_ids	Yes	Array of strings	Task ID list.

Response Parameters

Status code: 200

Table 4-80 Response body parameters

Parameter	Type	Description
project_id	String	Project ID. For details, see **Obtaining a Project ID**.
project_name	String	Project name.
start_date	String	Left boundary (included) of the application deployment start time. The format is yyyy-MM-dd.
end_date	String	Right boundary (included) of the application deployment start time. The format is YYYY-MM-DD. The maximum time range is one year.
tasks_success_rate	Array of **TaskSuccessRate** objects	Application success rate list.

Table 4-81 TaskSuccessRate

Parameter	Type	Description
task_id	String	Task ID.

Parameter	Type	Description
task_name	String	Application name.
success_rate	String	Success rate.
record_count	Integer	Number of deployment records.
success_record_count	Integer	Number of successful deployment records.

Example Requests

```
https://{endpoint}/v2/89931e210b214b5892ea833712f0f5e0/tasks/metrics/success-rate

{
  "start_date" : "2022-01-01",
  "end_date" : "2022-10-26",
  "task_ids" : [ "5bf0a54f36b04ddda7b94470fee39307", "b6d20b703ffe4a04bc68790ddabf6ab7" ]
}
```

Example Responses

Status code: 200

OK: The request is successful.

```
{
  "project_id" : "89931e210b214b5892ea833712f0f5e0",
  "project_name" : "Happy",
  "start_date" : "2022-01-01",
  "end_date" : "2022-10-26",
  "tasks_success_rate" : [ {
    "task_id" : "5bf0a54f36b04ddda7b94470fee39307",
    "task_name" : "happy482 Health Test via URLs",
    "success_rate" : "0",
    "record_count" : 8,
    "success_record_count" : 0
  }, {
    "task_id" : "b6d20b703ffe4a04bc68790ddabf6ab7",
    "task_name" : "happy486 Start/Stop Tomcat",
    "success_rate" : "14.29",
    "record_count" : 14,
    "success_record_count" : 2
  } ]
}
```

Status Codes

Status Code	Description
200	OK: The request is successful.

Error Codes

See **Error Codes**.

4.5 Environment Management

4.5.1 Creating an Environment Under an Application

Function

This API is used to create an environment for an application.

URI

POST /v1/applications/{application_id}/environments

Table 4-82 Path Parameters

Parameter	Mandatory	Type	Description
application_id	Yes	String	Application ID. Minimum: **32** Maximum: **32**

Request Parameters

Table 4-83 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). Possible values: application/json;charset=utf-8 application/json Default: **application/json;charset=utf-8** Enumeration values: • **application/json;charset=utf-8** • **application/json**
X-Auth-Token	Yes	String	User token. It can be obtained by calling an IAM API. The value of X-Subject-Token in the response header is the user token. Minimum: **0** Maximum: **20000**

Table 4-84 Request body parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details, see **Obtaining a Project ID**.
name	Yes	String	Environment name.
deploy_type	Yes	Integer	Deployment type. 0: host; 1: kubernetes. Default: **0** Enumeration values: • **0** • **1**
os	Yes	String	Operating system: Windows or Linux, which must be the same as that of the host cluster. Default: **linux** Enumeration values: • **windows** • **linux**
description	No	String	Environment description.

Response Parameters

Status code: 200

Table 4-85 Response body parameters

Parameter	Type	Description
status	String	Response status.
id	String	Environment ID.

Example Requests

```
https://{endpoint}/v1/applications/43943381f7764c52baae8e697720873f/environments

{
  "project_id" : "55837d272adf4eee90319800e2da6961",
  "name" : "Environment name",
  "deploy_type" : 0,
  "description" : "Environment Description",
  "os" : "linux"
}
```


Example Responses

Status code: 200

OK: The request is successful.

```
{
  "status" : "success",
  "id" : "140ca97e701d4c4c93c5932d5bdb32ec"
}
```

Status Codes

Status Code	Description
200	OK: The request is successful.

Error Codes

See **Error Codes**.

4.5.2 Querying the Environment List of an Application

Function

This API is used to query the environment list of an application.

URI

GET /v1/applications/{application_id}/environments

Table 4-86 Path Parameters

Parameter	Mandatory	Type	Description
application_id	Yes	String	Application ID. Minimum: **32** Maximum: **32**

Table 4-87 Query Parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. For details, see **Obtaining a Project ID**. Minimum: **32** Maximum: **32**

Parameter	Mandatory	Type	Description
page_index	No	Integer	Page number, indicating that the query starts from this page. The value of page is no less than 1. Minimum: **1** Maximum: **50** Default: **1**
page_size	No	Integer	Number of items displayed on each page. The value of size is no more than 100. Minimum: **1** Maximum: **100** Default: **100**
name	No	String	Name of the environment to be queried. Maximum: **128**
sort_key	No	String	Sorting field. Data can be sorted by environment name, username, creation time, or user alias. Default: **CREATED_TIME** Enumeration values: • **NAME** • **USER_NAME** • **CREATED_TIME** • **NICK_NAME**
sort_dir	No	String	Sorting order: DESC (descending order) and ASC (ascending order). Default: **DESC** Enumeration values: • **DESC** • **ASC**

Request Parameters

Table 4-88 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling an IAM API. The value of X-Subject-Token in the response header is the user token. Minimum: **0** Maximum: **20000**

Response Parameters

Status code: 200

Table 4-89 Response body parameters

Parameter	Type	Description
status	String	Response status.
total	Integer	Total number of environments in an application.
result	Array of **Environment Detail** objects	Environment list information. Array Length: **0 - 100**

Table 4-90 EnvironmentDetail

Parameter	Type	Description
id	String	Environment ID.
name	String	Environment name.
description	String	Environment description.
os	String	OS.
nick_name	String	User alias.
deploy_type	Integer	Deployment type. 0: host; 1: kubernetes.
created_time	String	Creation time.
instance_count	Integer	Number of host instances in the environment.

Parameter	Type	Description
created_by	**UserInfo** object	User information.
permission	**EnvironmentPermissionDetail** object	Environment permission details.

Table 4-91 UserInfo

Parameter	Type	Description
user_id	String	User ID.
user_name	String	Username.

Table 4-92 EnvironmentPermissionDetail

Parameter	Type	Description
can_delete	Boolean	Whether you have the permission to delete the environment.
can_deploy	Boolean	Whether you have the deployment permission.
can_edit	Boolean	Whether you have the permission to edit the environment.
can_manage	Boolean	Whether you have permission to edit the environment permission matrix.
can_view	Boolean	Whether you have the permission to view the environment.

Example Requests

```
https://{endpoint}/v1/applications/43943381f7764c52baae8e697720873f/environments?
project_id=55837d272adf4eee90319800e2da6961
```

Example Responses

Status code: 200

OK: The request is successful.

```
{
  "status" : "success",
  "total" : 1,
  "result" : [ {
    "created_by" : {
      "user_id" : "6baa7454109d47c192f22078fe6cda20",
      "user_name" : "devcloud_devcloud_l00490255_01"
```



```
  },
  "created_time" : "2023-06-20 16:53:29.0",
  "deploy_type" : 0,
  "description" : "",
  "id" : "a0a2274acc4f482bb2ecf49f865879fa",
  "name" : "casdasd",
  "nick_name" : "A-B Side Account",
  "os" : "linux",
  "permission" : {
    "can_delete" : true,
    "can_deploy" : true,
    "can_edit" : true,
    "can_manage" : true,
    "can_view" : true
  }
 } ]
}
```


Status Codes

Status Code	Description
200	OK: The request is successful.

Error Codes

See **Error Codes**.

4.5.3 Deleting an Environment from an Application

Function

This API is used to delete an environment of an application.

URI

DELETE /v1/applications/{application_id}/environments/{environment_id}

Table 4-93 Path Parameters

Parameter	Mandatory	Type	Description
application_id	Yes	String	Application ID. Minimum: **32** Maximum: **32**
environment_id	Yes	String	Environment ID. Minimum: **32** Maximum: **32**

Request Parameters

Table 4-94 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). Possible values: application/json;charset=utf-8 application/json Default: **application/json;charset=utf-8** Enumeration values: • **application/json;charset=utf-8** • **application/json**
X-Auth-Token	Yes	String	User token. It can be obtained by calling an IAM API. The value of X-Subject-Token in the response header is the user token. Minimum: **0** Maximum: **20000**

Response Parameters

Status code: 200

Table 4-95 Response body parameters

Parameter	Type	Description
status	String	Response status.
id	String	Environment ID.

Example Requests

```
https://endpoint/v1/applications/43943381f7764c52baae8e697720873f/environments/
140ca97e701d4c4c93c5932d5bdb32ec
```

Example Responses

Status code: 200

OK: The request is successful.

```
{
  "status" : "success",
```



```
  "id" : "140ca97e701d4c4c93c5932d5bdb32ec"
}
```

Status Codes

Status Code	Description
200	OK: The request is successful.

Error Codes

See **Error Codes**.

4.5.4 Querying the Details of an Environment

Function

This API is used to query the details of an environment.

URI

GET /v1/applications/{application_id}/environments/{environment_id}

Table 4-96 Path Parameters

Parameter	Mandatory	Type	Description
application_id	Yes	String	Application ID. Minimum: **32** Maximum: **32**
environment_id	Yes	String	Environment ID. Minimum: **32** Maximum: **32**

Request Parameters

Table 4-97 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	User token. It can be obtained by calling an IAM API. The value of X-Subject-Token in the response header is the user token. Minimum: **0** Maximum: **20000**

Response Parameters

Status code: 200

Table 4-98 Response body parameters

Parameter	Type	Description
status	String	Response status.
result	**Environment Detail** object	Environment details.

Table 4-99 EnvironmentDetail

Parameter	Type	Description
id	String	Environment ID.
name	String	Environment name.
description	String	Environment description.
os	String	OS.
nick_name	String	User alias.
deploy_type	Integer	Deployment type. 0: host; 1: kubernetes.
created_time	String	Creation time.
instance_count	Integer	Number of host instances in the environment.
created_by	**UserInfo** object	User information.

Parameter	Type	Description
permission	**EnvironmentPermissionDetail** object	Environment permission details.

Table 4-100 UserInfo

Parameter	Type	Description
user_id	String	User ID.
user_name	String	Username.

Table 4-101 EnvironmentPermissionDetail

Parameter	Type	Description
can_delete	Boolean	Whether you have the permission to delete the environment.
can_deploy	Boolean	Whether you have the deployment permission.
can_edit	Boolean	Whether you have the permission to edit the environment.
can_manage	Boolean	Whether you have permission to edit the environment permission matrix.
can_view	Boolean	Whether you have the permission to view the environment.

Example Requests

```
https://{endpoint}/v1/applications/43943381f7764c52baae8e697720873f/environments/140ca97e701d4c4c93c5932d5bdb32ec
```

Example Responses

Status code: 200

OK: The request is successful.

```
{
  "status" : "success",
  "result" : {
    "created_by" : {
      "user_id" : "6baa7454109d47c192f22078fe6cda20",
      "user_name" : "devcloud_devcloud_l00490255_01"
    },
    "created_time" : "2023-06-20 16:53:29.0",
    "deploy_type" : 0,
    "description" : "",
    "id" : "a0a2274acc4f482bb2ecf49f865879fa",
```



```
    "name" : "casdasd",
    "nick_name" : "A-B Side Account",
    "os" : "linux",
    "permission" : {
      "can_delete" : true,
      "can_deploy" : true,
      "can_edit" : true,
      "can_manage" : true,
      "can_view" : true
    }
  }
}
```

Status Codes

Status Code	Description
200	OK: The request is successful.

Error Codes

See **Error Codes**.

4.5.5 Importing a Host in the Environment

Function

This API is used to import a host in an environment.

URI

POST /v1/applications/{application_id}/environments/{environment_id}/hosts/import

Table 4-102 Path Parameters

Parameter	Mandatory	Type	Description
application_id	Yes	String	Application ID. Minimum: **32** Maximum: **32**
environment_id	Yes	String	Environment ID. Minimum: **32** Maximum: **32**

Request Parameters

Table 4-103 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). Possible values: application/json;charset=utf-8 application/json Default: **application/json;charset=utf-8** Enumeration values: • **application/json;charset=utf-8** • **application/json**
X-Auth-Token	Yes	String	User token. It can be obtained by calling an IAM API. The value of X-Subject-Token in the response header is the user token. Minimum: **0** Maximum: **20000**

Table 4-104 Request body parameters

Parameter	Mandatory	Type	Description
group_id	Yes	String	Host cluster ID.
host_ids	Yes	Array of strings	IDs of the hosts to be imported. Minimum: **32** Maximum: **32**

Response Parameters

Status code: 200

Table 4-105 Response body parameters

Parameter	Type	Description
status	String	Response status.

Parameter	Type	Description
result	Array of strings	IDs of the imported hosts. Minimum: **32** Maximum: **32** Array Length: **0 - 100**

Example Requests

```
https://{endpoint}/v1/applications/43943381f7764c52baae8e697720873f/environments/
666ec038a53c4b9f899823747a7130e8/hosts/import

{
  "group_id" : "4b0cb2f098174d38b0c15645c13eae6f",
  "host_ids" : [ "8e1eb7f010d4442ca150e3a1a5d96d94" ]
}
```

Example Responses

Status code: 200

OK: The request is successful.

```
{
  "status" : "success",
  "result" : [ "c5fa45c92c0849229d003d98f52617eb" ]
}
```

Status Codes

Status Code	Description
200	OK: The request is successful.

Error Codes

See **Error Codes**.

4.5.6 Deleting a Host from an Environment

Function

This API is used to delete a host of an environment.

URI

DELETE /v1/applications/{application_id}/environments/{environment_id}/{host_id}

Table 4-106 Path Parameters

Parameter	Mandatory	Type	Description
application_id	Yes	String	Application ID. Minimum: **32** Maximum: **32**
environment_id	Yes	String	Environment ID. Minimum: **32** Maximum: **32**
host_id	Yes	String	Host ID. Minimum: **32** Maximum: **32**

Request Parameters

Table 4-107 Request header parameters

Parameter	Mandatory	Type	Description
Content-Type	Yes	String	Message body type (format). Possible values: application/json;charset=utf-8 application/json Default: **application/json;charset=utf-8** Enumeration values: • **application/json;charset=utf-8** • **application/json**
X-Auth-Token	Yes	String	User token. It can be obtained by calling an IAM API. The value of X-Subject-Token in the response header is the user token. Minimum: **0** Maximum: **20000**

Response Parameters

Status code: 200

Table 4-108 Response body parameters

Parameter	Type	Description
status	String	Response status.
result	String	Environment ID.

Example Requests

```
https://{endpoint}/v1/applications/7de12f87232e46a79235f52d033b8688/environments/25e30c17f81042ba9a1a3383da39a7fc/c5fa45c92c0849229d003d98f52617eb
```

Example Responses

Status code: 200

OK: The request is successful.

```
{
  "status" : "success",
  "result" : "c5fa45c92c0849229d003d98f52617eb"
}
```

Status Codes

Status Code	Description
200	OK: The request is successful.

Error Codes

See **Error Codes**.

5 Application Examples

5.1 Example 1: Querying the Host Cluster List

Scenario

This section provides an example of using an API to query the host cluster list as a CodeArts user.

For details on how to call APIs, see **Calling APIs**.

Prerequisite

You have created a CodeArts project.

Approach

Query the list of all host clusters of the current user based on the user token.

Querying the Host Cluster List

- API information

```
URI: GET /v2/host-groups
```

- Request example:

```
GET  https://{endpoint}/v2/host-groups?region_name=eu-west-101&project_id=6039d4480efc4dddb178abff98719913&offset=1&limit=10&sort_key=create_time&sort_dir=DESC
```

- Response example:

```
{
 "total" : 1,
 "host_groups" : [ {
  "name" : "testwyk",
  "description" : "11122211",
  "os" : "linux",
  "nick_name" : "AB_edge_account",
  "id" : 200001291,
  "group_id" : "ab7647b0863c4e969c8949d38d591339",
  "region_name" : "eu-west-101",
  "project_id" : "6039d4480efc4dddb178abff98719913",
```



```
    "permission" : {
      "can_view" : true,
      "can_edit" : true,
      "can_delete" : true,
      "can_add_host" : true,
      "can_manage" : true
    },
    "created_by" : {
      "user_id" : "6baa7454109d47c192f22078fe6cda20",
      "user_name" : "devcloud_devcloud_l00490255_01"
    },
    "updated_by" : {
      "user_id" : "6baa7454109d47c192f22078fe6cda20",
      "user_name" : "devcloud_devcloud_l00490255_01"
    },
    "auto_connection_test_switch" : 0,
    "slave_cluster_id" : "",
    "created_time" : "2021-04-01 17:05:53",
    "updated_time" : "2021-04-21 14:29:14",
    "host_count" : 1,
    "project_name" : null
  } ]
}
```


6 Appendixes

6.1 Status Codes

Table 6-1 Status codes

Status Code	Message	Error Code Description
100	Continue	The client should continue with its request. This interim response is used to inform the client that the initial part of the request has been received and has not yet been rejected by the server.
101	Switching Protocols	Switch protocols. A protocol can only be switched to a more advanced protocol. For example, the protocol in use is switched to a later version of HTTP.
201	Created	The request has been fulfilled and resulted in a new resource being created.
202	Accepted	The request has been accepted for processing, but the processing has not been completed.
203	Non-Authoritative Information	The server successfully processed the request, but is returning information that may be from another source.
204	NoContent	The server has successfully processed the request, but does not return any response. The status code is returned in response to an HTTP OPTIONS request.
205	Reset Content	The server has fulfilled the request, but the requester is required to reset the content.

Status Code	Message	Error Code Description
206	Partial Content	The server has fulfilled the partial GET request for the resource.
300	Multiple Choices	There are multiple choices for a requested resource. A list of resource characteristics and addresses is returned for the client such as a browser to choose from.
301	Moved Permanently	This and all future requests have been permanently moved to the given URI indicated in this response.
302	Found	The requested resource has been temporarily moved.
303	See Other	Retrieve another URL, using a **GET** or **POST** method.
304	Not Modified	The requested resource has not been modified. When the server returns this status code, no resource is returned.
305	Use Proxy	The requested resource is available only through a proxy.
306	Unused	This HTTP status code is no longer used.
400	BadRequest	Invalid request. The client should not repeat the request without modifications.
401	Unauthorized	The authentication information provided by the client is incorrect or invalid.
402	Payment Required	Reserved request.
403	Forbidden	Request rejected. The server has received the request and understood it, but refuses to respond to it. The client should not repeat the request without modifications.
404	NotFound	The requested resource cannot be found. The client should not repeat the request without modifications.
405	MethodNotAllowed	The method specified in the request is not allowed for the requested resource. The client should not repeat the request without modifications.

Status Code	Message	Error Code Description
406	Not Acceptable	The server cannot implement the request based on the content characteristics of the request.
407	Proxy Authentication Required	This code is similar to 401, but indicates that the client must first authenticate itself with the proxy.
408	Request Time-out	The server timed out waiting for the request. The client may re-initiate the request without modifications at any time later.
409	Conflict	The request cannot be processed due to a conflict. This status code indicates that the resource that the client attempts to create already exits, or the request fails to be processed because of the update of the conflict request.
410	Gone	The requested resource cannot be found. This status code indicates that the requested resource has been deleted permanently.
411	Length Required	The server refused to process the request because the request does not specify the length of its content.
412	Precondition Failed	The server does not meet one of the preconditions that the requester puts on the request.
413	Request Entity Too Large	The server refuses to process a request because the request is too large. The server may disable the connection to prevent the client from sending requests consecutively. If the server temporarily cannot process the request, the response will contain a **Retry-After** header field.
414	Request-URI Too Large	The request URI is too long for the server to process.
415	Unsupported Media Type	The server does not support the media type in the request.
416	Requested range not satisfiable	The requested range is invalid.
417	Expectation Failed	The server fails to meet the requirements of the **Expect** request header field.
422	UnprocessableEntity	The request is well-formed but is unable to respond due to semantic errors.

Status Code	Message	Error Code Description
429	TooManyRequests	The client sends too many requests to the server within a given time, exceeding the client's access frequency limit or beyond the server's processing capability. In this case, the client should repeat requests after the time specified in the **Retry-After** header of the response expires.
500	InternalServerError	The server is able to receive the request but it cannot understand the request.
501	Not Implemented	The server does not support the requested function, and therefore cannot implement the request.
502	Bad Gateway	The server acting as a gateway or proxy receives an invalid response from a remote server.
503	ServiceUnavailable	The requested service is invalid. The client should not repeat the request without modifications.
504	ServerTimeout	The server could not return a timely response. The response will reach the client only if the request carries a timeout parameter.
505	HTTP Version not supported	The server does not support the HTTP protocol version used in the request.

6.2 Error Codes

If an error occurs during API calling, no result will be returned. Identify the error cause based on the error codes of each API. The response message body contains the specific error code and information.

Error Response Body Format

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

```
{
 "error": {
  "code": "DEV.CH.10001",
  "message": "Param invalid"
 },
 "status": "failed"
}
```

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

If an error code starting with **APIGW** is displayed when you call an API, seek solutions in **API Gateway Error Codes**.

Status Codes	Error Codes	Error Message	Description	Solution
200	Deploy.00011154	No permissions.	No permissions.	Check whether you have the permission to perform this operation.
200	Deploy.00010001	System busy. Please try again later.	System busy. Please try again later.	System busy. Please try again later.
200	Deploy.00011001	The application already exists.	The application already exists.	Ensure that the application name is correct and try again.
200	Deploy.00011020	This application does not exist.	This application does not exist.	Ensure that the application exists and try again.
200	Deploy.00011027	The application is being deployed.	The application is being deployed.	Try again later.
200	Deploy.00011042	The draft application cannot be deployed.	The draft application cannot be deployed.	Save the draft as a formal application and try again.
200	Deploy.00011043	Create application failed.	Create application failed.	Create application failed. Try again later.
200	Deploy.00011129	Too many applications for the tenant.	Too many applications for the tenant.	Delete some applications and try again.
200	Deploy.00011155	Real-time authentication incomplete.	Real-time authentication incomplete.	Please perform real-name authentication before access.
200	Deploy.00011156	No atomic operations enabled.	No atomic operations enabled.	Ensure that the atomic operation is correct and try again later.

Status Codes	Error Codes	Error Message	Description	Solution
200	Deploy.00011161	The application is being deployed.	The application is being deployed.	Stop deploying the application and try again.
200	Deploy.00011602	No templates found.	No templates found.	Ensure that the template exists and try again.
200	Deploy.00015002	One or more request parameters are invalid.	One or more request parameters are invalid.	Ensure that the parameters are correct and try again.
200	Deploy.00015155	Failed to create the permission.	Failed to create the permission.	Check whether you have the permission to perform this operation.
200	Deploy.00015156	Insufficient modify permissions.	Insufficient modify permissions.	Check whether you have the permission to perform this operation.
200	Deploy.00015829	The application is being deployed.	The application is being deployed.	Try again after the application deployment is complete.
200	Deploy.00015830	Too many applications.	Too many applications.	Too many applications. Please wait.
200	Deploy.00015832	Too many applications.	Too many applications.	Too many applications. Please wait.
200	Deploy.00015901	Invalid time range: ${start_date} - ${end_date}	Invalid time range: ${start_date} - ${end_date}	Check the time range. For example, the start time cannot be later than the end time.
200	Deploy.00015902	The maximum time range ${max_time_range} is exceeded.	The maximum time range ${max_time_range} is exceeded.	Check whether the time span exceeds the maximum range.

Status Codes	Error Codes	Error Message	Description	Solution
200	Deploy.00015903	You are not a project member.	You are not a project member.	Check whether the current user is a project member.
200	Deploy.00015904	Invalid date format: ${invalid_input_date}	Invalid date format: ${invalid_input_date}	Check the input date format.
200	Deploy.00015905	Non-static parameters of the environment and enumeration types cannot be empty.	Non-static parameters of the environment and enumeration types cannot be empty.	Check whether the non-static parameters of the environment and enumeration types are empty.
200	Deploy.00016902	Project does not exist.	Project does not exist.	Check the project ID and try again.
200	Deploy.00016903	Invalid project name.	Invalid project name.	Check the project name and try again.
200	Deploy.00016905	Parameter type required when the parameter name is not empty.	Parameter type required when the parameter name is not empty.	Check whether the parameter type is correct.
200	Deploy.00016906	The enumerated value is incorrect. Check your entered value.	The enumerated value is incorrect. Check your entered value.	Check whether the entered enumerated value exists.
200	Deploy.00021001	Invalid parameter.	Invalid parameter.	Ensure that the parameters are correct and try again.
200	Deploy.00021008	Invalid password input.	Invalid password input.	Enter a correct password.
200	Deploy.00021100	Create host cluster failed.	Create host cluster failed.	System error. Try again later.

Status Codes	Error Codes	Error Message	Description	Solution
200	Deploy.00021102	The host cluster name already exists.	The host cluster name already exists.	Change the host cluster name and try again.
200	Deploy.00021103	Delete host cluster failed.	Delete host cluster failed.	System busy. Please try again later.
200	Deploy.00021104	The host cluster does not exist.	The host cluster does not exist.	Ensure that the host cluster exists and try again.
200	Deploy.00021105	Modify host cluster failed.	Modify host cluster failed.	Try again later.
200	Deploy.00021106	Host name already exists.	Host name already exists.	Change the host name and try again.
200	Deploy.00021107	Failed to create a host.	Failed to create a host.	System busy. Please try again later.
200	Deploy.00021108	The host does not exist.	The host does not exist.	Ensure that the host to be queried exists in the host cluster.
200	Deploy.00021109	Failed to modify the host.	Failed to modify the host.	Try again later.
200	Deploy.00021110	Failed to delete the host.	Failed to delete the host.	Try again later.
200	Deploy.00021111	Delete host cluster failed. Host cluster contains host.	Delete host cluster failed. Host cluster contains host.	Delete host from host cluster first.
200	Deploy.00021112	Only host in this host cluster can be selected.	Only host in this host cluster can be selected.	Select host in this host cluster and try again.
200	Deploy.00021113	Too many host clusters are deployed in the project.	Too many host clusters are deployed in the project.	Delete unnecessary host clusters and try again.

Status Codes	Error Codes	Error Message	Description	Solution
200	Deploy.00021114	Inconsistent host OS and host cluster OS.	Inconsistent host OS and host cluster OS.	Ensure that the host and host cluster use the same OS and try again.
200	Deploy.00021115	Max. hosts in host cluster: 1000	Max. hosts in host cluster: 1000	Delete unnecessary hosts and try again.
200	Deploy.00021116	Duplicate IP addresses and port numbers in the host cluster.	Duplicate IP addresses and port numbers in the host cluster.	Ensure that the IP address is correct and try again.
200	Deploy.00021117	Host of this proxy not deleted.	Host of this proxy not deleted.	Delete the host of this proxy first.
200	Deploy.00021123	Host selected not found in current cluster.	Host selected not found in current cluster.	Ensure that the host to be modified is in the current host cluster and try again.
200	Deploy.00021135	The value of auth_region is inconsistent with the transferred region information.	The value of auth_region is inconsistent with the transferred region information.	Ensure that the transferred region information is correct.
200	Deploy.00021200	Insufficient permissions to create host cluster.	Insufficient permissions to create host cluster.	Confirm the permission and try again.
200	Deploy.00021201	Insufficient permissions to delete host cluster.	Insufficient permissions to delete host cluster.	Add the permission and try again.
200	Deploy.00021202	Insufficient permissions to modify host cluster.	Insufficient permissions to modify host cluster.	Add the permission and try again.

Status Codes	Error Codes	Error Message	Description	Solution
200	Deploy.00021203	Insufficient permissions.	Insufficient permissions.	Apply for the permission and try again.
200	Deploy.00021204	Real-time authentication incomplete.	Real-time authentication incomplete.	Authenticate your real name and try again.
200	Deploy.00021205	Insufficient permissions to create a host.	Insufficient permissions to create a host.	Apply for the permission and try again.
200	Deploy.00021206	Insufficient permissions to delete a host.	Insufficient permissions to delete a host.	Add the permission and try again.
200	Deploy.00021207	Insufficient permissions to update a host.	Insufficient permissions to update a host.	Add the permission and try again.

6.3 Obtaining a Project ID

Obtaining a Project ID by Calling an API

A project ID can be obtained by calling a specific API. For details, see **Querying Project Information Based on the Specified Criteria**.

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

In the following example, **id** indicates a project ID.

```
{
    "projects": [
        {
            "domain_id": "65382450e8f64ac0870cd180d14e684b",
            "is_domain": false,
            "parent_id": "65382450e8f64ac0870cd180d14e684b",
            "name": "eu-west-101",
            "description": "",
            "links": {
                "next": null,
                "previous": null,
                "self": "https://www.example.com/v3/projects/a4a5d4098fb4474fa22cd05f897d6b99"
            },
            "id": "a4a5d4098fb4474fa22cd05f897d6b99",
            "enabled": true
        }
    ],
    "links": {
```



```
        "next": null,
        "previous": null,
        "self": "https://www.example.com/v3/projects"
    }
}
```

Obtaining a Project ID from the Console

A project ID is required for some URLs when an API is called. To obtain a project ID, perform the following operations:

1. Log in to the management console.
2. Hover over the username and choose **My Credentials** from the drop-down list.

   On the displayed **API Credentials** page, view project IDs in the project list.

If there are multiple projects in one region, expand **Region** and obtain subproject IDs from the **Project ID** column.

6.4 Obtaining an Account ID

An account ID is required for some URLs when an API is called. To obtain an account ID, perform the following operations:

1. Log in to the management console.
2. Hover over the username and choose **My Credentials** from the drop-down list.

   On the displayed **API Credentials** page, view **Account ID**.

