

Cloud Application Engine

API Reference

Issue 01
Date 2025-02-14



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Huawei Cloud Computing Technologies Co., Ltd.

Address: Huawei Cloud Data Center Jiaoxinggong Road
Qianzhong Avenue
Gui'an New District
Gui Zhou 550029
People's Republic of China

Website: <https://www.huaweicloud.com/intl/en-us/>

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1 Before You Start

1.1 Overview

Cloud Application Engine (CAE) provides serverless hosting for applications. This one-stop application hosting solution features fast deployment, low cost, and lean O&M. CAE releases applications from source code, software packages, and image packages quickly and easily, with auto scaling to the second, pay-per-use billing, and simple O&M infrastructure. The whole application lifecycle is manageable with observable metrics.

This document describes how to use application programming interfaces (APIs) to perform operations on CAE, such as creating, deleting, and modifying resources. For details about all supported operations, see [2 API Overview](#).

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

1.2 Endpoints

An endpoint is the request address for calling an API. Endpoints vary depending on regions and services. [Table 1-1](#) lists CAE endpoints.

Table 1-1 CAE endpoints

Region Name	Region	Endpoint
AP-Singapore	ap-southeast-3	cae.ap-southeast-3.myhuaweicloud.com

1.3 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 Identity and Access Management (IAM) users and grant them permissions for routine management.

- User

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

An IAM user can view the account ID and user ID on the [My Credentials](#) page of the console. The domain 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), 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 (AZ)

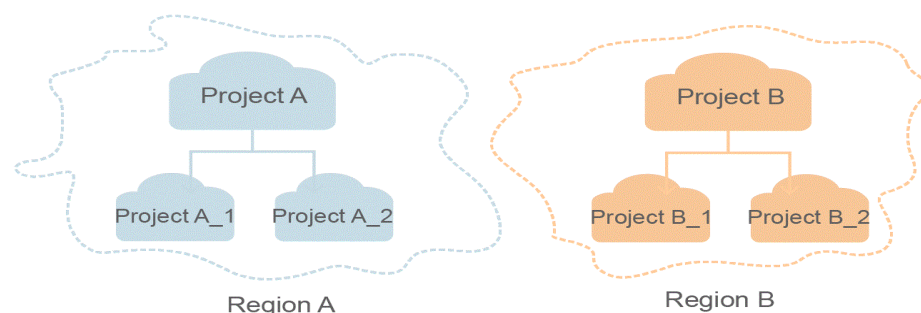
An AZ contains one or more physical data centers. Each AZ has independent cooling, fire extinguishing, moisture-proof, and electricity facilities. Within an AZ, computing, network, storage, and other resources are logically divided into multiple clusters. AZs within a region are interconnected using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

- Project

Projects group and isolate resources (including compute, storage, and network resources) across physical regions. A default project is provided for each region, and subprojects can be created under each default project. Users can be granted permissions to access all resources in a specific project. If you need more refined access control, you can create subprojects under a default project and purchase resources in subprojects. Then you can assign required permissions for users to access only the resources in specific subprojects.

For details about how to check the project ID, see [Obtaining a Project ID](#).

Figure 1-1 Project isolating model



To view a project ID, go to the [My Credentials](#) page.

- Enterprise project

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

For details about how to obtain enterprise project IDs and features, see [Enterprise Management User Guide](#).

2 API Overview

CAE provides self-developed APIs that comply with API design specifications.

Environment APIs

Table 2-1 Environment APIs

API	Description
Obtaining the Environment List	Obtain the environment list of the current project.
Creating an Environment	Create an environment.
Deleting an Environment	Delete an environment.

Volume APIs

Table 2-2 Volume APIs

API	Description
Obtaining the Cloud Storage List	Obtain the volume list in the current environment.
Authorizing Cloud Storage	Create a volume.
Unbinding Cloud Storage	Delete a volume.

Application APIs

Table 2-3 Application APIs

API	Description
Obtaining the Application List	Obtain the application list in the current environment.
Creating an Application	Create an application.
Obtaining the Details of an Application	Obtain an application.
Deleting an Application	Delete an application.

Component APIs

Table 2-4 Component APIs

API	Description
Creating a Component	Create a component.
Obtaining the Component List	Obtain the component list of an application in the current environment.
Obtaining the Details of a Component	Obtain a component.
Updating a Component	Update a component.
Deleting a Component	Delete a component.
Performing Operations on a Component	Perform operations on a component, such as deploying, upgrading, configuring, rolling back, restarting, and stopping a component.
Obtaining the Component Snapshot List	Obtain the snapshot list of a component.
Obtaining the Component Instance List	Obtain the component instance list.

Component Configuration APIs

Table 2-5 Component configuration APIs

API	Description
Obtaining the Component Configuration List	Obtain the component configuration list.
Adding Component Configuration	Create a component configuration.
Deleting Component Configuration	Delete a component configuration.

Agency APIs

Table 2-6 Agency APIs

API	Description
Obtaining the Agency List	Obtain the agency list of the current user.
Creating an Agency	Create an agency.

Job APIs

Table 2-7 Job APIs

API	Description
Obtaining the Details of a Job	Obtain a job.
Retrying a Job	Retry a job.

Domain Name APIs

Table 2-8 Domain name APIs

API	Description
Obtaining the Domain Name List	Obtain the domain name list.

API	Description
Adding a Domain Name	Create a domain name.
Deleting a Domain Name	Delete a domain name.

Certificate APIs

Table 2-9 Certificate APIs

API	Description
Obtaining the Certificate List	Obtain the certificate list.
Creating a Certificate	Create a certificate.
Modifying a Certificate	Modify a certificate.
Deleting a Certificate	Delete a certificate.

Start/Stop Policy APIs

Table 2-10 Start/Stop policy APIs

API	Description
Obtaining the Scheduled Start/Stop Policy List	Obtain the list of scheduled start/stop policies.
Creating a Scheduled Start/Stop Policy	Create a scheduled start/stop policy.
Deleting a Scheduled Start/Stop Policy	Delete a scheduled start/stop policy.
Modifying a Scheduled Start/Stop Policy	Modify a scheduled start/stop policy.
Obtaining the Last Execution Status of a Scheduled Start/Stop Policy	Obtain the execution status of the last scheduled start/stop policy.

EIP APIs

Table 2-11 EIP APIs

API	Description
Obtaining the EIP List of Cluster Nodes	Obtain the EIP list of nodes in a cluster.
Modifying Bandwidth	Modify a bandwidth.

Monitoring System APIs

Table 2-12 Monitoring system APIs

API	Description
Obtaining Monitoring System Configurations	Obtain monitoring system configurations.
Creating Monitoring System Configurations	Create monitoring system configurations.
Updating Monitoring System Configurations	Update monitoring system configurations.

Secret APIs

Table 2-13 Secret APIs

API	Description
Associating a Secret Registered by the Tenant	Associate a secret registered by the tenant.
Obtaining User Secrets	Obtain user secrets.
Modifying the Version of a Secret Registered with DEW	Modify the version of a secret registered with DEW.
Deleting a Secret Registered with DEW	Delete a secret registered with DEW.
Obtaining the Components That Are Using a Specific Secret	Obtain the components that are using a specific secret.

3 Calling APIs

3.1 Making an API Request

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

Request URI

A request URI is in the following format:

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

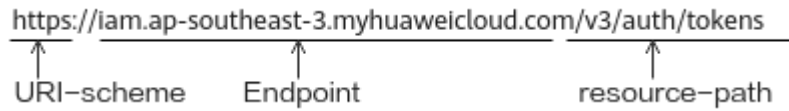
Although a request URI is included in the request header, most programming languages or frameworks require passing the request URI separately.

- **URI-scheme:** protocol used to transmit requests. All APIs use HTTPS.
- **Endpoint:** domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from **Regions and Endpoints**. For example, the endpoint of IAM in the AP-Singapore region is iam.ap-southeast-3.myhuaweicloud.com.
- **resource-path:** access path of an API for performing a specified operation. Obtain the value from the URI of an API. For example, **resource-path** of the API for obtaining a user token is **/v3/auth/tokens**.
- **query-string:** query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of "Parameter name=Parameter value". For example, **? limit=10** means to query up to 10 pieces of data.

For example, to obtain an IAM token in the AP-Singapore region, use the endpoint (iam.ap-southeast-3.myhuaweicloud.com) of this region, and **resource-path (/v3/auth/tokens)** in the URI of the API for **obtaining a user token**. Then, construct the URI as follows:

```
https://iam.ap-southeast-3.myhuaweicloud.com/v3/auth/tokens
```

Figure 3-1 Example URI



NOTE

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

Request Method

HTTP-based request methods, which are also called operations or actions, specify the type of operations that you are requesting.

- **GET**: requests a server to return specified resources.
- **PUT**: requests a server to update specified resources.
- **POST**: requests a server to add resources or perform special operations.
- **DELETE**: requests a server to delete specified resources, for example, to delete an object.
- **HEAD**: requests a server to return the response header only.
- **PATCH**: requests a server to update part of a specified resource. If the resource does not exist, a new resource may be created using the **PATCH** method.

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

```
POST https://iam.ap-southeast-3.myhuaweicloud.com/v3/auth/tokens
```

Request Header

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

Common request header fields are as follows:

- **Content-Type**: 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. This field is mandatory. The user token is a response to the API for **obtaining 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 access key ID/secret access key (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 Authentication](#).

- **X-Project-ID**: subproject ID. This field is optional and can be used in multi-project scenarios.
- **X-Domain-ID**: account ID.

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

```
POST https://iam.ap-southeast-3.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
```

Request Body

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

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

In the case of the API for **obtaining a user token**, the request parameters and parameter description can be obtained from the API request. The following provides an example request with a body included. Replace *username*, *domainname*, ******* (login password), and *xxxxxxxxxx* (project name, for example, (**ap-southeast-3**)) with the actual values. Obtain a project name 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.ap-southeast-3.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
```

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

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 for **obtaining 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 encrypted using an access key ID (AK)/secret access key (SK) pair.

Token-based Authentication

NOTE

The validity period of a token is 24 hours. If a token is used for authentication, cache it to prevent frequent API calling.

Ensure that the token is valid while you use it. Using a token that will soon expire may cause API calling failures.

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

When calling the API for **obtaining a user token**, set **auth.scope** in the request body to **project**.

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

After a token is obtained, add **X-Auth-Token** to the request header to specify the token when calling other APIs. For example, if the token is **ABCDEFGF....**, add **X-Auth-Token: ABCDEFG....** to a request as follows:

```
GET https://iam.ap-southeast-3.myhuaweicloud.com/v3/auth/projects
Content-Type: application/json
X-Auth-Token: ABCDEFG....
```

AK/SK-based Authentication

NOTE

AK/SK-based authentication supports API requests with a body not larger than 12 MB. For API requests with a larger body, token-based authentication is recommended.

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

- AK: a unique identifier used in conjunction with an SK to sign requests cryptographically.
- SK: used with an AK to sign requests cryptographically. It identifies a request sender and prevents the request from being modified.

In AK/SK-based authentication, you can sign requests using an AK/SK based on the signature algorithm or using the signing SDK. For details about how to sign requests and use the signing SDK, see [API Request Signing 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](#).

For example, if status code **201** is returned for the calling of the API for [obtaining 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 of the API for [obtaining 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 Response header

```

connection → keep-alive

content-type → application/json

date → Tue, 12 Feb 2019 06:52:13 GMT

server → Web Server

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

transfer-encoding → chunked

via → proxy A

x-content-type-options → nosniff

x-download-options → noopen

x-frame-options → SAMEORIGIN

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

x-subject-token
→ MIIYXQYJKoZIhvcNAQcCoIIYTCCEoCAQExDTALBgIghkgBZQMEAgEwgharBgkqhkiG9w0BBwGgghacBIIWmHsidG9rZW4iOensiZXhwaXJlc19hdCI6IjIwMTk0MDItMTNUMC
fj3KJ56YgKnpVNRbW2eZ5eb78SZOKqjACgkIQ01wi4JIGzrpdl8LGXK5txldfq4lqHCYb8P4NaYONyEjcAgzIVeFYtLWT1GS00zxKZmlQHQ82HBqHdglZO9fuEbL5dMhdavj+33wEI
xHRCE9I87o+k9-
j+CMZSEB7bUGd5Uj6eRASXI1jipPEGA270g1FruooL6jqglFkNPQuFSOU8+uSsttVwrtNfsC+qTp22Rkd5MCqFGQ8LcuUxC3a+9CMbN0intWW7oeRUUVhVpxk8pxiX1wTEboX-
RzT6MUbpvGw-oPNFYxJECKnoH3HRozv0vN--n5d6Nbxg==

x-xss-protection → 1; mode=block;

```

Response Body

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

The following is part of the response body of the API for [obtaining a user token](#).

```

{
  "token": {
    "expires_at": "2019-02-13T06:52:13.855000Z",
    "methods": [
      "password"
    ],
    "catalog": [
      {
        "endpoints": [
          {
            "region_id": "xx-xxxxxx-1",

```

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

```

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

```

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

4 CAE API

4.1 Environment

4.1.1 Obtaining the Environment List

Function

This API is used to obtain the environment list.

URI

GET /v1/{project_id}/cae/environments

Table 4-1 Path parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. See Obtaining a Project ID .

Request Parameters

Table 4-2 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	<p>User token.</p> <ul style="list-style-type: none"> To obtain a token, see Obtaining a User Token Through Password Authentication. After a response is returned, the value of X-Subject-Token in the response header is the token value. <p>Maximum characters: 16,384</p>
X-Enterprise-Project-ID	No	String	<p>Enterprise project ID.</p> <ul style="list-style-type: none"> When an environment is created, it will be bound with an enterprise project ID. Enter 0 or up to 36 characters in UUID format with hyphens (-). If this parameter is not specified or set to 0, resources in the default enterprise project are queried. <p>NOTE For more information about enterprise projects and how to obtain enterprise project IDs, see Enterprise Management User Guide.</p>

Response Parameters

Status code: 200

Table 4-3 Response body parameters

Parameter	Type	Description
api_version	String	<p>API version. Fixed value: v1.</p> <p>Enumerated value:</p> <ul style="list-style-type: none"> v1

Parameter	Type	Description
kind	String	API type. Fixed value: Environment. Enumerated value: <ul style="list-style-type: none"> ● Environment
items	Array of EnvironmentItem objects	Environment list.

Table 4-4 EnvironmentItem

Parameter	Type	Description
id	String	Environment ID.
name	String	Environment name.
job_id	String	Job ID.
status	String	Environment status. Enumerated values: <ul style="list-style-type: none"> ● creating ● finish ● deleting ● freeze ● police_freeze ● delete_failed
annotations	Map<String,String>	Additional attributes of the environment. <ul style="list-style-type: none"> ● cluster_id: CCE cluster ID. ● enterprise_project_id: enterprise project ID ● group_name: name of the SoftWare Repository for Container (SWR) organization bound to the active environment. ● inbound_eip_addr: Elastic IP (EIP) bound to the load balancer. ● namespace: Cloud Container Engine (CCE) cluster namespace. ● public_elb_id: ID of the Elastic Load Balance (ELB) bound to the active environment. ● type: environment type, which can only be exclusive. ● vpc_id: ID of the Virtual Private Cloud (VPC) bound to the active environment.

Parameter	Type	Description
created_at	String	Creation time.
updated_at	String	Update time.

Example Request

Obtain the environment list.

GET https://{endpoint}/v1/{project_id}/cae/environments

Example Response

Status code: 200

The request is successful.

```
{
  "api_version": "v1",
  "kind": "Environment",
  "items": [ {
    "id": "5d3d1e90-2f5d-4ef1-958b-3fc1ed0b0898",
    "name": "test",
    "version": "1.2.0",
    "job_id": "15cbf4ff-e6a8-4504-a5e0-574b9c21493a",
    "status": "finish",
    "annotations": {
      "cluster_id": "2177808d-a78e-11ed-be73-0255ac100b0a",
      "enterprise_project_id": "0",
      "group_name": "xxx",
      "inbound_eip_addr": "100.xx.xx.xxx",
      "namespace": "79c4xxxf5f3a4xxxda92601xxx64b1e8c-test",
      "public_elb_id": "da9e107e-bd25-412f-9546-563ed11ae34c",
      "type": "exclusive",
      "vpc_id": "09902850-9454-4715-9764-018f0c3701fd"
    }
  },
  "created_at": "2023-02-08T08:49:34.000737Z",
  "updated_at": "2023-02-08T08:49:34.000737Z"
}]
```

Status Code

Status Code	Description
200	The request is successful.

Error Code

For details, see [Error Codes](#).

4.1.2 Creating an Environment

Function

This API is used to create an environment.

URI

POST /v1/{project_id}/cae/environments

Table 4-5 Path parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. See Obtaining a Project ID .

Request Parameters

Table 4-6 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	<p>User token.</p> <ul style="list-style-type: none"> To obtain a token, see Obtaining a User Token Through Password Authentication. After a response is returned, the value of X-Subject-Token in the response header is the token value. <p>Maximum characters: 16,384</p>

Parameter	Mandatory	Type	Description
X-Enterprise-Project-ID	No	String	<p>Enterprise project ID.</p> <ul style="list-style-type: none"> When an environment is created, it will be bound with an enterprise project ID. Enter 0 or up to 36 characters in UUID format with hyphens (-). If this parameter is not specified or set to 0, resources in the default enterprise project are queried. <p>NOTE For more information about enterprise projects and how to obtain enterprise project IDs, see Enterprise Management User Guide.</p>

Table 4-7 Request body parameters

Parameter	Mandatory	Type	Description
api_version	Yes	String	<p>API version. Fixed value: v1. Enumerated value:</p> <ul style="list-style-type: none"> v1
kind	Yes	String	<p>API type. Fixed value: Environment. Enumerated value:</p> <ul style="list-style-type: none"> Environment
metadata	Yes	metadata object	Request data.

Table 4-8 metadata

Parameter	Mandatory	Type	Description
annotations	No	map<string, object>	Additional parameters for creating an environment. <ul style="list-style-type: none"> vpc_id: ID of the VPC bound to the created environment. group_name: name of the SWR organization bound to the created environment. type: environment type, which can only be exclusive.
name	Yes	String	Environment name.

Response Parameters

Status code: 200

Table 4-9 Response body parameters

Parameter	Type	Description
job_id	String	Job ID.

Example Request

Create environment **test**, and bind it to a VPC and organization **cae-test**.

```
POST https://{endpoint}/v1/{project_id}/cae/environments
{
  "api_version": "v1",
  "kind": "Environment",
  "metadata": {
    "annotations": {
      "vpc_id": "9b320498-6c39-4fe7-a758-79636dd68a82",
      "group_name": "cae-test",
      "type": "exclusive"
    },
    "name": "test"
  }
}
```

Example Response

Status code: 200

The request is successful.

```
{
  "job_id": "xxx"
}
```

Status Code

Status Code	Description
200	The request is successful.

Error Code

For details, see [Error Codes](#).

4.1.3 Deleting an Environment

Function

This API is used to delete an environment.

URI

DELETE /v1/{project_id}/cae/environments/{environment_id}

Table 4-10 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. See Obtaining a Project ID .
environment_id	Yes	String	Environment ID.

Request Parameters

Table 4-11 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	<p>User token.</p> <ul style="list-style-type: none"> To obtain a token, see Obtaining a User Token Through Password Authentication. After a response is returned, the value of X-Subject-Token in the response header is the token value. <p>Maximum characters: 16,384</p>

Parameter	Mandatory	Type	Description
X-Enterprise-Project-ID	No	String	<p>Enterprise project ID.</p> <ul style="list-style-type: none"> When an environment is created, it will be bound with an enterprise project ID. Enter 0 or up to 36 characters in UUID format with hyphens (-). If this parameter is not specified or set to 0, resources in the default enterprise project are queried. <p>NOTE For more information about enterprise projects and how to obtain enterprise project IDs, see Enterprise Management User Guide.</p>

Response Parameters

Status code: 200

Table 4-12 Response body parameters

Parameter	Type	Description
job_id	String	Job ID.

Example Request

Delete an environment.

```
DELETE https://{endpoint}/v1/{project_id}/cae/environments/{environment_id}
```

Example Response

Status code: 200

The request is successful.

```
{
  "job_id" : "xxx"
}
```

Status Code

Status Code	Description
200	The request is successful.

Error Code

For details, see [Error Codes](#).

4.2 Application

4.2.1 Obtaining the Application List

Function

This API is used to obtain the application list.

URI

GET /v1/{project_id}/cae/applications

Table 4-13 Path parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. See Obtaining a Project ID .

Request Parameters

Table 4-14 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	<p>User token.</p> <ul style="list-style-type: none"> To obtain a token, see Obtaining a User Token Through Password Authentication. After a response is returned, the value of X-Subject-Token in the response header is the token value. <p>Maximum characters: 16,384</p>
X-Enterprise-Project-ID	No	String	<p>Enterprise project ID.</p> <ul style="list-style-type: none"> When an environment is created, it will be bound with an enterprise project ID. Enter 0 or up to 36 characters in UUID format with hyphens (-). If this parameter is not specified or set to 0, resources in the default enterprise project are queried. <p>NOTE For more information about enterprise projects and how to obtain enterprise project IDs, see Enterprise Management User Guide.</p>
X-Environment-ID	Yes	String	<p>Environment ID.</p> <ul style="list-style-type: none"> To obtain an environment ID, see Obtaining the Environment List in <i>CAE API Reference</i>. In the response, id under items indicates the environment ID.

Response Parameters

Status code: 200

Table 4-15 Response body parameters

Parameter	Type	Description
api_version	String	API version. Fixed value: v1. Enumerated value: <ul style="list-style-type: none"> • v1
kind	String	API type. Fixed value: Application. Enumerated value: <ul style="list-style-type: none"> • Application
items	Array of ApplicationItem objects	Application list.

Table 4-16 ApplicationItem

Parameter	Type	Description
id	String	Application ID.
name	String	Application name.
created_at	String	Creation time.
updated_at	String	Update time.

Example Request

Obtain the application list.

```
GET https://{endpoint}/v1/{project_id}/cae/applications
```

Example Response

Status code: 200

The request is successful.

```
{
  "api_version": "v1",
  "kind": "Application",
  "items": [ {
    "id": "88275aa8-38ae-4428-a269-6c5f41d91491",
    "name": "test",
    "created_at": "2022-05-30T15:09:25.642149Z",
    "updated_at": "2022-05-30T15:09:25.642149Z"
  } ]
}
```

Status Code

Status Code	Description
200	The request is successful.

Error Code

For details, see [Error Codes](#).

4.2.2 Creating an Application

Function

This API is used to create an application.

URI

POST /v1/{project_id}/cae/applications

Table 4-17 Path parameter

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. See Obtaining a Project ID .

Request Parameters

Table 4-18 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	<p>User token.</p> <ul style="list-style-type: none"> To obtain a token, see Obtaining a User Token Through Password Authentication. After a response is returned, the value of X-Subject-Token in the response header is the token value. <p>Maximum characters: 16,384</p>

Parameter	Mandatory	Type	Description
X-Enterprise-Project-ID	No	String	<p>Enterprise project ID.</p> <ul style="list-style-type: none"> When an environment is created, it will be bound with an enterprise project ID. Enter 0 or up to 36 characters in UUID format with hyphens (-). If this parameter is not specified or set to 0, resources in the default enterprise project are queried. <p>NOTE For more information about enterprise projects and how to obtain enterprise project IDs, see Enterprise Management User Guide.</p>
X-Environment-ID	Yes	String	<p>Environment ID.</p> <ul style="list-style-type: none"> To obtain an environment ID, see Obtaining the Environment List in <i>CAE API Reference</i>. In the response, id under items indicates the environment ID.

Table 4-19 Request body parameters

Parameter	Mandatory	Type	Description
api_version	Yes	String	<p>API version. Fixed value: v1. Enumerated value:</p> <ul style="list-style-type: none"> v1
kind	Yes	String	<p>API type. Fixed value: Application. Enumerated value:</p> <ul style="list-style-type: none"> Application
metadata	Yes	metadata object	Request data.

Table 4-20 metadata

Parameter	Mandatory	Type	Description
name	Yes	String	Application name.

Response Parameters

Status code: 200

Table 4-21 Response body parameters

Parameter	Type	Description
api_version	String	API version. Fixed value: v1. Enumerated value: <ul style="list-style-type: none"> • v1
kind	String	API type. Fixed value: Application. Enumerated value: <ul style="list-style-type: none"> • Application
metadata	metadata object	Response data.

Table 4-22 metadata

Parameter	Type	Description
id	String	Application ID.
name	String	Application name.
created_at	String	Creation time.
updated_at	String	Update time.

Example Request

Create application **test**.

POST https://{endpoint}/v1/{project_id}/cae/applications

```
{
  "api_version": "v1",
  "kind": "Application",
  "metadata": {
    "name": "test"
  }
}
```

Example Response

Status code: 200

The request is successful.

```
{
  "api_version" : "v1",
  "kind" : "Application",
  "metadata" : {
    "id" : "02022b3f-0594-496e-b34e-b41acd2bdde4",
    "name" : "test",
    "created_at" : "2022-06-10T06:49:24.836171213Z",
    "updated_at" : "2022-06-10T06:49:24.836171213Z"
  }
}
```

Status Code

Status Code	Description
200	The request is successful.

Error Code

For details, see [Error Codes](#).

4.2.3 Obtaining the Details of an Application

Function

This API is used to obtain the details of an application.

URI

GET /v1/{project_id}/cae/applications/{application_id}

Table 4-23 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. See Obtaining a Project ID .
application_id	Yes	String	Application ID.

Request Parameters

Table 4-24 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	<p>User token.</p> <ul style="list-style-type: none"> To obtain a token, see Obtaining a User Token Through Password Authentication. After a response is returned, the value of X-Subject-Token in the response header is the token value. <p>Maximum characters: 16,384</p>
X-Enterprise-Project-ID	No	String	<p>Enterprise project ID.</p> <ul style="list-style-type: none"> When an environment is created, it will be bound with an enterprise project ID. Enter 0 or up to 36 characters in UUID format with hyphens (-). If this parameter is not specified or set to 0, resources in the default enterprise project are queried. <p>NOTE For more information about enterprise projects and how to obtain enterprise project IDs, see Enterprise Management User Guide.</p>
X-Environment-ID	Yes	String	<p>Environment ID.</p> <ul style="list-style-type: none"> To obtain an environment ID, see Obtaining the Environment List in <i>CAE API Reference</i>. In the response, id under items indicates the environment ID.

Response Parameters

Status code: 200

Table 4-25 Response body parameters

Parameter	Type	Description
api_version	String	API version. Fixed value: v1. Enumerated value: <ul style="list-style-type: none"> • v1
kind	String	API type. Fixed value: Application. Enumerated value: <ul style="list-style-type: none"> • Application
metadata	metadata object	Response data.

Table 4-26 metadata

Parameter	Type	Description
id	String	Application ID.
name	String	Application name.
created_at	String	Creation time.
updated_at	String	Update time.

Example Request

Obtain the details of an application.

```
GET https://{endpoint}/v1/{project_id}/cae/applications/{application_id}
```

Example Response

Status code: 200

The request is successful.

```
{
  "api_version" : "v1",
  "kind" : "Application",
  "metadata" : {
    "id" : "02022b3f-0594-496e-b34e-b41acd2bdde4",
    "name" : "test",
    "created_at" : "2022-06-10T06:49:24.836171213Z",
    "updated_at" : "2022-06-10T06:49:24.836171213Z"
  }
}
```

Status Code

Status Code	Description
200	The request is successful.

Error Code

For details, see [Error Codes](#).

4.2.4 Deleting an Application

Function

This API is used to delete an application.

URI

DELETE /v1/{project_id}/cae/applications/{application_id}

Table 4-27 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. See Obtaining a Project ID .
application_id	Yes	String	Application ID.

Request Parameters

Table 4-28 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	<p>User token.</p> <ul style="list-style-type: none"> To obtain a token, see Obtaining a User Token Through Password Authentication. After a response is returned, the value of X-Subject-Token in the response header is the token value. <p>Maximum characters: 16,384</p>

Parameter	Mandatory	Type	Description
X-Enterprise-Project-ID	No	String	<p>Enterprise project ID.</p> <ul style="list-style-type: none"> When an environment is created, it will be bound with an enterprise project ID. Enter 0 or up to 36 characters in UUID format with hyphens (-). If this parameter is not specified or set to 0, resources in the default enterprise project are queried. <p>NOTE For more information about enterprise projects and how to obtain enterprise project IDs, see Enterprise Management User Guide.</p>
X-Environment-ID	Yes	String	<p>Environment ID.</p> <ul style="list-style-type: none"> To obtain an environment ID, see Obtaining the Environment List in <i>CAE API Reference</i>. In the response, id under items indicates the environment ID.

Response Parameters

None

Example Request

Delete an application.

```
DELETE https://{endpoint}/v1/{project_id}/cae/applications/{application_id}
```

Example Response

None

Status Code

Status Code	Description
204	The deletion is successful.

Error Code

For details, see [Error Codes](#).

4.3 Component

4.3.1 Creating a Component

Function

This API is used to create a component.

URI

POST /v1/{project_id}/cae/applications/{application_id}/components

Table 4-29 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. See Obtaining a Project ID .
application_id	Yes	String	Application ID.

Request Parameters

Table 4-30 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	<p>User token.</p> <ul style="list-style-type: none"> To obtain a token, see Obtaining a User Token Through Password Authentication. After a response is returned, the value of X-Subject-Token in the response header is the token value. <p>Maximum characters: 16,384</p>
X-Enterprise-Project-ID	No	String	<p>Enterprise project ID.</p> <ul style="list-style-type: none"> When an environment is created, it will be bound with an enterprise project ID. Enter 0 or up to 36 characters in UUID format with hyphens (-). If this parameter is not specified or set to 0, resources in the default enterprise project are queried. <p>NOTE For more information about enterprise projects and how to obtain enterprise project IDs, see Enterprise Management User Guide.</p>
X-Environment-ID	Yes	String	<p>Environment ID.</p> <ul style="list-style-type: none"> To obtain an environment ID, see Obtaining the Environment List in <i>CAE API Reference</i>. In the response, id under items indicates the environment ID.

Table 4-31 Request body parameters

Parameter	Mandatory	Type	Description
api_version	Yes	String	API version. Fixed value: v1. Enumerated value: <ul style="list-style-type: none"> • v1
kind	Yes	String	API type. Fixed value: Component. Enumerated value: <ul style="list-style-type: none"> • Component
metadata	No	metadata object	Request data.
spec	No	spec object	Component specifications.

Table 4-32 metadata

Parameter	Mandatory	Type	Description
name	Yes	String	Component name.
annotations	Yes	Map<String,String>	Additional parameter for creating a component. Only version is supported. This parameter is mandatory.

Table 4-33 spec

Parameter	Mandatory	Type	Description
runtime	Yes	String	Language or runtime. Enumerated values: <ul style="list-style-type: none"> • Docker • Java8 • Java11 • Java17 • Tomcat8 • Tomcat9 • Python3 • Nodejs8 • Nodejs14 • Nodejs16 • Php7

Parameter	Mandatory	Type	Description
replica	Yes	Integer	Number of instances.
build	No	Build object	Build information.
source	Yes	Source object	Source information.
resource_limit	Yes	ResourceLimit object	Instance specifications.
image_url	No	String	Image address.

Table 4-34 Build

Parameter	Mandatory	Type	Description
archive	Yes	Archive object	Place where build products are archived for management.
parameters	Yes	map<string, object>	Additional parameters. Options: <ul style="list-style-type: none"> • base_image: base image address. • build_cmd: custom build command. • dockerfile_path: custom dockerfile path. • dockerfile_content: custom dockerfile content. • artifact_name: product to be run after the Java multi-module build. The value ends with .jar.

Table 4-35 Archive

Parameter	Mandatory	Type	Description
artifact_name space	No	String	SWR organization for product management.

Table 4-36 Source

Parameter	Mandatory	Type	Description
code	No	Repo object	Source code repository information.

Parameter	Mandatory	Type	Description
type	Yes	String	Source type. Enumerated values: <ul style="list-style-type: none"> • image • code • softwarePackage
sub_type	No	String	Source subtype. <ul style="list-style-type: none"> • If type is code, sub_type indicates a code repository, such as GitLab, GitHub, or Bitbucket. • If type is softwarePackage, sub_type indicates a software package repository, such as BinObs or BinDevCloud (CodeArts Release Repo). Enumerated values: <ul style="list-style-type: none"> • BinObs • BinDevCloud • GitLab • GitHub • Bitbucket
url	Yes	String	URL. <ul style="list-style-type: none"> • If type is image, url indicates an image address. • If type is code, url indicates a Git address. • If type is softwarePackage, url indicates a software package address.

Table 4-37 Repo

Parameter	Mandatory	Type	Description
auth_name	No	String	Authorization name.
branch	No	String	Branch.
namespace	No	String	Namespace, which must be Base64-encoded.

Table 4-38 ResourceLimit

Parameter	Mandatory	Type	Description
cpu_limit	Yes	String	CPU limit. Enumerated values: <ul style="list-style-type: none"> • 500m • 1000m • 2000m
memory_limit	Yes	String	Memory limit. Enumerated values: <ul style="list-style-type: none"> • 1Gi • 2Gi • 4Gi

Response Parameters

Status code: 200

Table 4-39 Response body parameters

Parameter	Type	Description
api_version	String	API version. Fixed value: v1. Enumerated value: <ul style="list-style-type: none"> • v1
kind	String	API type. Fixed value: Component. Enumerated value: <ul style="list-style-type: none"> • Component
metadata	MetadataResponse object	Response data.
spec	CreateComponentSpec object	Component specifications.

Table 4-40 MetadataResponse

Parameter	Type	Description
id	String	Component ID.
name	String	Component name.

Parameter	Type	Description
annotations	Map<String,String>	Additional attributes of the component. Options: <ul style="list-style-type: none"> log_group_id: ID of an LTS log group. log_stream_id: ID of an LTS log stream. version: component version.
created_at	String	Creation time.
updated_at	String	Update time.

Table 4-41 CreateComponentSpec

Parameter	Type	Description
runtime	String	Language or runtime. Enumerated values: <ul style="list-style-type: none"> Docker Java8 Java11 Java17 Tomcat8 Tomcat9 Python3 Nodejs8 Nodejs14 Nodejs16 Php7
env_id	String	Environment ID.
replica	Integer	Number of instances.
source	Source object	Source information.
build	Build object	Build information.
resource_limit	ResourceLimit object	Instance specifications.
available_replica	Integer	Number of available instances.
status	String	Component status.

Table 4-42 Source

Parameter	Type	Description
code	Repo object	Source code repository information.
type	String	Source type. Enumerated values: <ul style="list-style-type: none"> ● image ● code ● softwarePackage
sub_type	String	Source subtype. <ul style="list-style-type: none"> ● If type is code, sub_type indicates a code repository, such as GitLab, GitHub, or Bitbucket. ● If type is softwarePackage, sub_type indicates a software package repository, such as BinObs or BinDevCloud (CodeArts Release Repo). Enumerated values: <ul style="list-style-type: none"> ● BinObs ● BinDevCloud ● GitLab ● GitHub ● Bitbucket
url	String	URL. <ul style="list-style-type: none"> ● If type is image, url indicates an image address. ● If type is code, url indicates a Git address. ● If type is softwarePackage, url indicates a software package address.

Table 4-43 Repo

Parameter	Type	Description
auth_name	String	Authorization name.
branch	String	Branch.
namespace	String	Namespace, which must be Base64-encoded.

Table 4-44 Build

Parameter	Type	Description
archive	Archive object	Place where build products are archived for management.
parameters	map<string, object>	Additional parameters. Options: <ul style="list-style-type: none"> • base_image: base image address. • build_cmd: custom build command. • dockerfile_path: custom dockerfile path. • dockerfile_content: custom dockerfile content. • artifact_name: product to be run after the Java multi-module build. The value ends with .jar.

Table 4-45 Archive

Parameter	Type	Description
artifact_name space	String	SWR organization for product management.

Table 4-46 ResourceLimit

Parameter	Type	Description
cpu_limit	String	CPU limit. Enumerated values: <ul style="list-style-type: none"> • 500m • 1000m • 2000m
memory_limit	String	Memory limit. Enumerated values: <ul style="list-style-type: none"> • 1Gi • 2Gi • 4Gi

Example Request

- Create a component based on a source code repository: Set the component name to **test-code**, version to **1.0.0**, and runtime to **Java8**, and select source code repository **GitLab**.

```
POST https://{endpoint}/v1/{project_id}/cae/applications/{application_id}/components
```



```
{
  "api_version": "v1",
  "kind": "Component",
  "metadata": {
    "name": "test-code",
    "annotations": {
      "version": "1.0.0"
    }
  },
  "spec": {
    "runtime": "Java8",
    "build": {
      "archive": {
        "artifact_namespace": "xxx"
      },
      "parameters": {
        "base_image": "openjdk:8u181-jdk-alpine",
        "dockerfile_path": "./Dockerfile"
      }
    },
    "source": {
      "type": "code",
      "sub_type": "GitLab",
      "url": "https://xxx:8090/xxx/cae-frontend.git",
      "code": {
        "branch": "master",
        "auth_name": "gitlab-xxx",
        "namespace": "em1n"
      }
    },
    "resource_limit": {
      "cpu_limit": "500m",
      "memory_limit": "1Gi"
    },
    "replica": 1
  }
}
```

- Create a component based on an image: Set the component name to **test-image**, version to **1.0.0**, and runtime to **Docker**, and select image **nginx**.

POST https://{endpoint}/v1/{project_id}/cae/applications/{application_id}/components

```
{
  "api_version": "v1",
  "kind": "Component",
  "metadata": {
    "name": "test-image",
    "annotations": {
      "version": "1.0.0"
    }
  },
  "spec": {
    "runtime": "Docker",
    "source": {
      "type": "image",
      "url": "nginx:stable-alpine-perl"
    },
    "resource_limit": {
      "cpu_limit": "500m",
      "memory_limit": "1Gi"
    },
    "replica": 1
  }
}
```

- Create a component based on a software package: Set the component name to **test-jar**, version to **1.0.0**, and runtime to **Java8**, and select software package **forecast-1.0.0.jar**.

```
POST https://{endpoint}/v1/{project_id}/cae/applications/{application_id}/components
{
  "api_version": "v1",
  "kind": "Component",
  "metadata": {
    "name": "test-jar",
    "annotations": {
      "version": "1.0.0"
    }
  },
  "spec": {
    "runtime": "Java8",
    "build": {
      "archive": {
        "artifact_namespace": "xxx"
      },
      "parameters": {
        "base_image": "openjdk:8u181-jdk-alpine",
        "dockerfile_content": "FROM java:8 \\nADD forecast-1.0.0.jar \\nEXPOSE 8080 \\nENTRYPOINT [\"java\\\", \"-jar\\\", \"forecast-1.0.0.jar\"]"
      }
    },
    "source": {
      "type": "softwarePackage",
      "sub_type": "BinObs",
      "url": "https://xxx.obs.region.xxx.huawei.com/xxx/forecast-1.0.0.jar"
    },
    "resource_limit": {
      "cpu_limit": "500m",
      "memory_limit": "1Gi"
    },
    "replica": 1
  }
}
```

Example Response

Status code: 200

The request is successful.

```
{
  "api_version": "v1",
  "kind": "Component",
  "metadata": {
    "id": "cac09548-047f-46c4-abbd-a6a652305565",
    "name": "test-code",
    "annotations": {
      "log_group_id": "5b13213a-84f8-4b72-8ca5-530e15cc1402",
      "log_stream_id": "6ddf6c71-4767-46db-98a2-fe5fb301b366",
      "version": "1.0.0"
    }
  },
  "created_at": "2023-02-13T02:38:22.689607114Z",
  "updated_at": "2023-02-13T02:38:22.689607114Z",
  "spec": {
    "runtime": "Java8",
    "env_id": "9819b3f5-dd08-44ff-ba88-eb38e435594c",
    "replica": 1,
    "source": {
      "type": "code",
      "sub_type": "GitLab",
      "url": "http://xxx@cpe.gitlab.com:8090/xxx/cae-backend.git",
      "code": {
        "branch": "master",
        "auth_name": "gitlab-xxx",
        "namespace": "em1n"
      }
    }
  }
}
```

```

    },
    "build": {
      "archive": {
        "artifact_namespace": "xxx"
      },
      "parameters": {
        "base_image": "openjdk:8u181-jdk-alpine"
        "dockerfile_path": "./Dockerfile"
      }
    },
    "resource_limit": {
      "cpu_limit": "500m",
      "memory_limit": "1Gi"
    },
    "available_replica": 0,
    "status": "created"
  }
}

```

Status Code

Status Code	Description
200	The request is successful.

Error Code

For details, see [Error Codes](#).

4.3.2 Obtaining the Component List

Function

This API is used to obtain the component list.

URI

GET /v1/{project_id}/cae/applications/{application_id}/components

Table 4-47 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. See Obtaining a Project ID .
application_id	Yes	String	Application ID.

Table 4-48 Query parameters

Parameter	Mandatory	Type	Description
limit	No	String	Maximum number of returned results.
offset	No	String	Pagination offset, that is, the start position for query.

Request Parameters

Table 4-49 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	<p>User token.</p> <ul style="list-style-type: none"> To obtain a token, see Obtaining a User Token Through Password Authentication. After a response is returned, the value of X-Subject-Token in the response header is the token value. <p>Maximum characters: 16,384</p>
X-Enterprise-Project-ID	No	String	<p>Enterprise project ID.</p> <ul style="list-style-type: none"> When an environment is created, it will be bound with an enterprise project ID. Enter 0 or up to 36 characters in UUID format with hyphens (-). If this parameter is not specified or set to 0, resources in the default enterprise project are queried. <p>NOTE For more information about enterprise projects and how to obtain enterprise project IDs, see Enterprise Management User Guide.</p>

Parameter	Mandatory	Type	Description
X-Environment-ID	Yes	String	Environment ID. <ul style="list-style-type: none"> To obtain an environment ID, see Obtaining the Environment List in <i>CAE API Reference</i>. In the response, id under items indicates the environment ID.

Response Parameters

Status code: 200

Table 4-50 Response body parameters

Parameter	Type	Description
api_version	String	API version. Fixed value: v1. Enumerated value: <ul style="list-style-type: none"> v1
kind	String	API type. Fixed value: Component. Enumerated value: <ul style="list-style-type: none"> Component
items	Array of ComponentItem objects	Component list.
total_count	Integer	Total number of pages.

Table 4-51 ComponentItem

Parameter	Type	Description
id	String	Component ID.
name	String	Component name.
annotations	map<string, object>	Additional information.
created_at	String	Creation time.
updated_at	String	Update time.
spec	ComponentSpec object	Component specifications.

Table 4-52 ComponentSpec

Parameter	Type	Description
runtime	String	Language or runtime. Enumerated value: <ul style="list-style-type: none"> • Docker • Java8 • Java11 • Java17 • Tomcat8 • Tomcat9 • Python3 • Nodejs8 • Nodejs14 • Nodejs16 • Php7
env_id	String	Environment ID.
replica	Integer	Number of instances.
source	Source object	Source information.
build	Build object	Build information.
resource_limit	ResourceLimit object	Instance specifications.
access_info	Array of Access objects	Access mode list.
image_url	String	Image address.
available_replica	Integer	Number of available instances.
job_id	String	Job ID.
build_id	String	Build task ID.
status	String	Component status.
build_log_id	String	Build log ID.
configuration_operation_id	String	Latest operation ID.

Table 4-53 Source

Parameter	Type	Description
code	Repo object	Source code repository information.
type	String	Source type. Enumerated values: <ul style="list-style-type: none"> ● image ● code ● softwarePackage
sub_type	String	Source subtype. <ul style="list-style-type: none"> ● If type is code, sub_type indicates a code repository, such as GitLab, GitHub, or Bitbucket. ● If type is softwarePackage, sub_type indicates a software package repository, such as BinObs or BinDevCloud (CodeArts Release Repo). Enumerated values: <ul style="list-style-type: none"> ● BinObs ● BinDevCloud ● GitLab ● GitHub ● Bitbucket
url	String	URL. <ul style="list-style-type: none"> ● If type is image, url indicates an image address. ● If type is code, url indicates a Git address. ● If type is softwarePackage, url indicates a software package address.

Table 4-54 Repo

Parameter	Type	Description
auth_name	String	Authorization name.
branch	String	Branch.
namespace	String	Namespace, which must be Base64-encoded.

Table 4-55 Build

Parameter	Type	Description
archive	Archive object	Place where build products are archived for management.
parameters	map<string, object>	Additional parameters. Options: <ul style="list-style-type: none"> • base_image: base image address. • build_cmd: custom build command. • dockerfile_path: custom dockerfile path. • dockerfile_content: custom dockerfile content. • artifact_name: product to be run after the Java multi-module build. The value ends with .jar.

Table 4-56 Archive

Parameter	Type	Description
artifact_name space	String	SWR organization for product management.

Table 4-57 ResourceLimit

Parameter	Type	Description
cpu_limit	String	CPU limit. Enumerated values: <ul style="list-style-type: none"> • 500m • 1000m • 2000m
memory_limit	String	Memory limit. Enumerated values: <ul style="list-style-type: none"> • 1Gi • 2Gi • 4Gi

Table 4-58 Access

Parameter	Type	Description
address	String	Access address.

Parameter	Type	Description
type	String	Access mode. Enumerated values: <ul style="list-style-type: none"> ● LoadBalancer ● Ingress

Example Request

Obtain the component list.

```
GET https://{endpoint}/v1/{project_id}/cae/applications/{application_id}/components
```

Example Response

Status code: 200

The request is successful.

```
{
  "api_version": "v1",
  "kind": "Component",
  "items": [ {
    "id": "610fb1de-5ac6-424e-b910-d7be902575d0",
    "name": "demo-xxx",
    "annotations": {
      "version": "1.0.0",
      "enterprise_project_id": ""
    },
    "created_at": "2022-06-09T07:01:05.323979Z",
    "updated_at": "2022-06-09T07:01:05.323979Z",
    "spec": {
      "runtime": "Docker",
      "env_id": "50d18173-5df0-4db4-a2b6-8a428d42146b",
      "replica": 1,
      "source": {
        "type": "image",
        "url": "xxx/demo-jar:v2"
      },
      "build": {
        "archive": {
          "artifact_namespace": "xxx"
        },
        "parameters": {
          "base_image": ""
        }
      },
      "resource_limit": {
        "cpu_limit": "500m",
        "memory_limit": "1Gi"
      },
      "image_url": "xxx/demo-jar:v2",
      "available_replica": 1,
      "job_id": "251b7d84-c353-416a-864f-5878a94c3d28",
      "status": "running",
      "configuration_operation_id": "xxx"
    }
  } ],
  "total_count": 1
}
```

Status Code

Status Code	Description
200	The request is successful.

Error Code

For details, see [Error Codes](#).

4.3.3 Obtaining the Details of a Component

Function

This API is used to obtain the details of a component.

URI

GET /v1/{project_id}/cae/applications/{application_id}/components/{component_id}

Table 4-59 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. See Obtaining a Project ID .
application_id	Yes	String	Application ID.
component_id	Yes	String	Component ID.

Request Parameters

Table 4-60 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	<p>User token.</p> <ul style="list-style-type: none"> To obtain a token, see Obtaining a User Token Through Password Authentication. After a response is returned, the value of X-Subject-Token in the response header is the token value. <p>Maximum characters: 16,384</p>
X-Enterprise-Project-ID	No	String	<p>Enterprise project ID.</p> <ul style="list-style-type: none"> When an environment is created, it will be bound with an enterprise project ID. Enter 0 or up to 36 characters in UUID format with hyphens (-). If this parameter is not specified or set to 0, resources in the default enterprise project are queried. <p>NOTE For more information about enterprise projects and how to obtain enterprise project IDs, see Enterprise Management User Guide.</p>
X-Environment-ID	Yes	String	<p>Environment ID.</p> <ul style="list-style-type: none"> To obtain an environment ID, see Obtaining the Environment List in <i>CAE API Reference</i>. In the response, id under items indicates the environment ID.

Response Parameters

Status code: 200

Table 4-61 Response body parameters

Parameter	Type	Description
api_version	String	API version. Fixed value: v1. Enumerated value: <ul style="list-style-type: none"> • v1
kind	String	API type. Fixed value: Component. Enumerated value: <ul style="list-style-type: none"> • Component
metadata	MetadataResponse object	Response data.
spec	ComponentSpec object	Component specifications.

Table 4-62 MetadataResponse

Parameter	Type	Description
id	String	Component ID.
name	String	Component name.
annotations	Map<String,String>	Additional attributes of the component. Options: <ul style="list-style-type: none"> • log_group_id: ID of an LTS log group. • log_stream_id: ID of an LTS log stream. • version: component version.
created_at	String	Creation time.
updated_at	String	Update time.

Table 4-63 ComponentSpec

Parameter	Type	Description
runtime	String	Language or runtime. Enumerated values: <ul style="list-style-type: none"> • Docker • Java8 • Java11 • Java17 • Tomcat8 • Tomcat9 • Python3 • Nodejs8 • Nodejs14 • Nodejs16 • Php7
env_id	String	Environment ID.
replica	Integer	Number of instances.
source	Source object	Source information.
build	Build object	Build information.
resource_limit	ResourceLimit object	Instance specifications.
access_info	Array of Access objects	Access mode list.
image_url	String	Image address.
available_replica	Integer	Number of available instances.
job_id	String	Job ID.
build_id	String	Build task ID.
status	String	Component status.
build_log_id	String	Build log ID.
configuration_operation_id	String	Latest operation ID.

Table 4-64 Source

Parameter	Type	Description
code	Repo object	Source code repository information.
type	String	Source type. Enumerated values: <ul style="list-style-type: none"> ● image ● code ● softwarePackage
sub_type	String	Source subtype. <ul style="list-style-type: none"> ● If type is code, sub_type indicates a code repository, such as GitLab, GitHub, or Bitbucket. ● If type is softwarePackage, sub_type indicates a software package repository, such as BinObs or BinDevCloud (CodeArts Release Repo). Enumerated values: <ul style="list-style-type: none"> ● BinObs ● BinDevCloud ● GitLab ● GitHub ● Bitbucket
url	String	URL. <ul style="list-style-type: none"> ● If type is image, url indicates an image address. ● If type is code, url indicates a Git address. ● If type is softwarePackage, url indicates a software package address.

Table 4-65 Repo

Parameter	Type	Description
auth_name	String	Authorization name.
branch	String	Branch.
namespace	String	Namespace, which must be Base64-encoded.

Table 4-66 Build

Parameter	Type	Description
archive	Archive object	Place where build products are archived for management.
parameters	map<string, object>	Additional parameters. Options: <ul style="list-style-type: none"> • base_image: base image address. • build_cmd: custom build command. • dockerfile_path: custom dockerfile path. • dockerfile_content: custom dockerfile content. • artifact_name: product to be run after the Java multi-module build. The value ends with .jar.

Table 4-67 Archive

Parameter	Type	Description
artifact_name space	String	SWR organization for product management.

Table 4-68 ResourceLimit

Parameter	Type	Description
cpu_limit	String	CPU limit. Enumerated values: <ul style="list-style-type: none"> • 500m • 1000m • 2000m
memory_limit	String	Memory limit. Enumerated values: <ul style="list-style-type: none"> • 1Gi • 2Gi • 4Gi

Table 4-69 Access

Parameter	Type	Description
address	String	Access address.

Parameter	Type	Description
type	String	Access mode. Enumerated values: <ul style="list-style-type: none"> ● LoadBalancer ● Ingress

Example Request

Obtain the details of a component.

GET https://{endpoint}/v1/{project_id}/cae/applications/{application_id}/components/{component_id}

Example Response

Status code: 200

The request is successful.

```
{
  "api_version": "v1",
  "kind": "Component",
  "metadata": {
    "id": "b04980af-5f20-49ec-b499-79b5a4eb8a43",
    "name": "test",
    "annotations": {
      "log_group_id": "96fe4c34-578a-4ea8-8e77-ee59bf8a0fd1",
      "log_stream_id": "9c024ad2-5c80-45ee-8651-5f2bd89d3c7e",
      "version": "1.0.0"
    }
  },
  "created_at": "2023-03-03T03:32:10.040303Z",
  "updated_at": "2023-03-03T03:32:10.040303Z",
  "spec": {
    "runtime": "Docker",
    "env_id": "7eb2f920-e183-4d4e-9b9d-fffb875ae520",
    "replica": 1,
    "source": {
      "type": "image",
      "url": "nginx:stable-alpine-perl"
    },
    "resource_limit": {
      "cpu_limit": "500m",
      "memory_limit": "1Gi"
    },
    "image_url": "nginx:stable-alpine-perl",
    "available_replica": 1,
    "job_id": "c96c6907-5c69-4d72-bce0-03926a857b21",
    "status": "running"
  }
}
```

Status Code

Status Code	Description
200	The request is successful.

Error Code

For details, see [Error Codes](#).

4.3.4 Updating a Component

Function

This API is used to update a component.

URI

PUT /v1/{project_id}/cae/applications/{application_id}/components/{component_id}

Table 4-70 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. See Obtaining a Project ID .
application_id	Yes	String	Application ID.
component_id	Yes	String	Component ID.

Request Parameters

Table 4-71 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	<p>User token.</p> <ul style="list-style-type: none"> To obtain a token, see Obtaining a User Token Through Password Authentication. After a response is returned, the value of X-Subject-Token in the response header is the token value. <p>Maximum characters: 16,384</p>

Parameter	Mandatory	Type	Description
X-Enterprise-Project-ID	No	String	<p>Enterprise project ID.</p> <ul style="list-style-type: none"> When an environment is created, it will be bound with an enterprise project ID. Enter 0 or up to 36 characters in UUID format with hyphens (-). If this parameter is not specified or set to 0, resources in the default enterprise project are queried. <p>NOTE For more information about enterprise projects and how to obtain enterprise project IDs, see Enterprise Management User Guide.</p>
X-Environment-ID	Yes	String	<p>Environment ID.</p> <ul style="list-style-type: none"> To obtain an environment ID, see Obtaining the Environment List in <i>CAE API Reference</i>. In the response, id under items indicates the environment ID.

Table 4-72 Request body parameters

Parameter	Mandatory	Type	Description
api_version	Yes	String	<p>API version. Fixed value: v1. Enumerated value:</p> <ul style="list-style-type: none"> v1
kind	Yes	String	<p>API type. Fixed value: Component. Enumerated value:</p> <ul style="list-style-type: none"> Component
metadata	No	UpdateComponentRequestMetadata object	Request data.

Parameter	Mandatory	Type	Description
spec	No	UpdateComponentRequestSpec object	Component specifications.

Table 4-73 UpdateComponentRequestMetadata

Parameter	Mandatory	Type	Description
name	Yes	String	Component name.
annotations	No	Map<String,String>	Additional parameter for updating a component. Only version is supported. This parameter is mandatory.

Table 4-74 UpdateComponentRequestSpec

Parameter	Mandatory	Type	Description
runtime	No	String	Language or runtime. Enumerated values: <ul style="list-style-type: none"> • Docker • Java8 • Java11 • Java17 • Tomcat8 • Tomcat9 • Python3 • Nodejs8 • Nodejs14 • Nodejs16 • Php7
source	No	Source object	Source information.
build	No	Build object	Build information.
resource_limit	Yes	ResourceLimit object	Instance specifications.
replica	No	Integer	Number of instances.

Table 4-75 Source

Parameter	Mandatory	Type	Description
code	No	Repo object	Source code repository information.
type	Yes	String	Source type. Enumerated values: <ul style="list-style-type: none"> • image • code • softwarePackage
sub_type	No	String	Source subtype. <ul style="list-style-type: none"> • If type is code, sub_type indicates a code repository, such as GitLab, GitHub, or Bitbucket. • If type is softwarePackage, sub_type indicates a software package repository, such as BinObs or BinDevCloud (CodeArts Release Repo). Enumerated values: <ul style="list-style-type: none"> • BinObs • BinDevCloud • GitLab • GitHub • Bitbucket
url	Yes	String	URL. <ul style="list-style-type: none"> • If type is image, url indicates an image address. • If type is code, url indicates a Git address. • If type is softwarePackage, url indicates a software package address.

Table 4-76 Repo

Parameter	Mandatory	Type	Description
auth_name	No	String	Authorization name.

Parameter	Mandatory	Type	Description
branch	No	String	Branch.
namespace	No	String	Namespace, which must be Base64-encoded.

Table 4-77 Build

Parameter	Mandatory	Type	Description
archive	Yes	Archive object	Place where build products are archived for management.
parameters	Yes	map<string, object>	Additional parameters. Options: <ul style="list-style-type: none"> • base_image: base image address. • build_cmd: custom build command. • dockerfile_path: custom dockerfile path. • dockerfile_content: custom dockerfile content. • artifact_name: product to be run after the Java multi-module build. The value ends with .jar.

Table 4-78 Archive

Parameter	Mandatory	Type	Description
artifact_name space	No	String	SWR organization for product management.

Table 4-79 ResourceLimit

Parameter	Mandatory	Type	Description
cpu_limit	Yes	String	CPU limit. Enumerated values: <ul style="list-style-type: none"> • 500m • 1000m • 2000m

Parameter	Mandatory	Type	Description
memory_limit	Yes	String	Memory limit. Enumerated values: <ul style="list-style-type: none"> • 1Gi • 2Gi • 4Gi

Response Parameters

None

Example Request

- Change the component code source to a source code repository: Set the component name to **demo**, version to **1.0.0**, and runtime to **Java8**, and select source code repository **GitLab**.

PUT https://{endpoint}/v1/{project_id}/cae/applications/{application_id}/components/{component_id}

```
{
  "api_version": "v1",
  "kind": "Component",
  "metadata": {
    "name": "demo",
    "annotations": {
      "version": "1.0.0"
    }
  },
  "spec": {
    "runtime": "Java8",
    "build": {
      "archive": {
        "artifact_namespace": "xxx"
      },
      "parameters": {
        "base_image": "xxx",
        "dockerfile_path": "xxx"
      }
    },
    "source": {
      "type": "code",
      "sub_type": "GitLab",
      "url": "https://xxx:8090/xxx/cae-frontend.git",
      "code": {
        "branch": "master",
        "auth_name": "gitlab-xxx",
        "namespace": "em1n"
      }
    },
    "resource_limit": {
      "cpu_limit": "500m",
      "memory_limit": "1Gi"
    },
    "replica": 1
  }
}
```

- Change the component code source to an image: Set the component name to **demo**, version to **1.0.0**, and runtime to **Docker**, and select image **cae-demo**.

PUT https://{endpoint}/v1/{project_id}/cae/applications/{application_id}/components/{component_id}

```
{
  "api_version": "v1",
  "kind": "Component",
  "metadata": {
    "name": "demo",
    "annotations": {
      "version": "1.0.0"
    }
  },
  "spec": {
    "runtime": "Docker",
    "build": {
      "archive": {
        "artifact_namespace": "xxx"
      }
    },
    "parameters": {
      "base_image": "xxx"
    }
  },
  "source": {
    "type": "image",
    "url": "xxx/cae-demo:v1"
  },
  "resource_limit": {
    "cpu_limit": "500m",
    "memory_limit": "1Gi"
  },
  "replica": 1
}
```

- Change the component code source to a software package: Set the component name to **demo**, version to **1.0.0**, and runtime to **Java8**, and select software package **forecast-1.0.0.jar**.

PUT https://{endpoint}/v1/{project_id}/cae/applications/{application_id}/components/{component_id}

```
{
  "api_version": "v1",
  "kind": "Component",
  "metadata": {
    "name": "demo",
    "annotations": {
      "version": "1.0.0"
    }
  },
  "spec": {
    "runtime": "Java8",
    "build": {
      "archive": {
        "artifact_namespace": "xxx"
      }
    },
    "parameters": {
      "base_image": "openjdk:8u181-jdk-alpine",
      "dockerfile_content": "xxx"
    }
  },
  "source": {
    "type": "softwarePackage",
    "sub_type": "BinObs",
    "url": "https://xxx.obs.region.xxx.huawei.com/xxx/forecast-1.0.0.jar"
  },
  "resource_limit": {
    "cpu_limit": "500m",
    "memory_limit": "1Gi"
  },
  "replica": 1
}
```

Example Response

None

Status Code

Status Code	Description
200	The request is successful.

Error Code

For details, see [Error Codes](#).

4.3.5 Deleting a Component

Function

This API is used to delete a component.

URI

DELETE /v1/{project_id}/cae/applications/{application_id}/components/{component_id}

Table 4-80 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. See Obtaining a Project ID .
application_id	Yes	String	Application ID.
component_id	Yes	String	Component ID.

Request Parameters

Table 4-81 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	<p>User token.</p> <ul style="list-style-type: none"> To obtain a token, see Obtaining a User Token Through Password Authentication. After a response is returned, the value of X-Subject-Token in the response header is the token value. <p>Maximum characters: 16,384</p>
X-Enterprise-Project-ID	No	String	<p>Enterprise project ID.</p> <ul style="list-style-type: none"> When an environment is created, it will be bound with an enterprise project ID. Enter 0 or up to 36 characters in UUID format with hyphens (-). If this parameter is not specified or set to 0, resources in the default enterprise project are queried. <p>NOTE For more information about enterprise projects and how to obtain enterprise project IDs, see Enterprise Management User Guide.</p>
X-Environment-ID	Yes	String	<p>Environment ID.</p> <ul style="list-style-type: none"> To obtain an environment ID, see Obtaining the Environment List in <i>CAE API Reference</i>. In the response, id under items indicates the environment ID.

Response Parameters

None

Example Request

Delete a component.

```
DELETE https://{endpoint}/v1/{project_id}/cae/applications/{application_id}/components/{component_id}
```

Example Response

None

Status Code

Status Code	Description
200	The request is successful.

Error Code

For details, see [Error Codes](#).

4.3.6 Performing Operations on a Component

Function

This API is used to perform operations (such as deploy, upgrade, restart, stop, start, scale, configure, and roll back) on a component.

URI

```
POST /v1/{project_id}/cae/applications/{application_id}/components/{component_id}/action
```

Table 4-82 Path parameters

Parameter	Mandatory	Type	Description
project_id	Yes	String	Project ID. See Obtaining a Project ID .
application_id	Yes	String	Application ID.
component_id	Yes	String	Component ID.

Request Parameters

Table 4-83 Request header parameters

Parameter	Mandatory	Type	Description
X-Auth-Token	Yes	String	<p>User token.</p> <ul style="list-style-type: none"> To obtain a token, see Obtaining a User Token Through Password Authentication. After a response is returned, the value of X-Subject-Token in the response header is the token value. <p>Maximum characters: 16,384</p>
X-Enterprise-Project-ID	No	String	<p>Enterprise project ID.</p> <ul style="list-style-type: none"> When an environment is created, it will be bound with an enterprise project ID. Enter 0 or up to 36 characters in UUID format with hyphens (-). If this parameter is not specified or set to 0, resources in the default enterprise project are queried. <p>NOTE For more information about enterprise projects and how to obtain enterprise project IDs, see Enterprise Management User Guide.</p>
X-Environment-ID	Yes	String	<p>Environment ID.</p> <ul style="list-style-type: none"> To obtain an environment ID, see Obtaining the Environment List in <i>CAE API Reference</i>. In the response, id under items indicates the environment ID.

Table 4-84 Request body parameters

Parameter	Mandatory	Type	Description
api_version	Yes	String	API version. Fixed value: v1. Enumerated value: <ul style="list-style-type: none"> • v1
kind	Yes	String	API type. Fixed value: Action. Enumerated value: <ul style="list-style-type: none"> • Action
metadata	No	metadata object	Request data.
spec	No	ActionOnComponentSpec object	Action specifications.

Table 4-85 metadata

Parameter	Mandatory	Type	Description
annotations	No	map<string, object>	Resource information.
name	Yes	String	Action name. Enumerated values: <ul style="list-style-type: none"> • deploy • upgrade • configure • scale • restart • start • stop • rollback

Table 4-86 ActionOnComponentSpec

Parameter	Mandatory	Type	Description
snapshot_index	No	Integer	Snapshot index.
replica	No	Integer	Number of instances.

Parameter	Mandatory	Type	Description
source	No	ActionOnComponentSource object	Source data.
resource_limit	No	ResourceLimitForUpgrade object	Instance specifications.
build	No	ActionOnComponentBuild object	Build data.

Table 4-87 ActionOnComponentSource

Parameter	Mandatory	Type	Description
code	No	Repo object	Source code repository information.
type	No	String	Source type. Enumerated values: <ul style="list-style-type: none"> • image • code • softwarePackage
sub_type	No	String	Source subtype. <ul style="list-style-type: none"> • If type is code, sub_type indicates a code repository, such as GitLab, GitHub, or Bitbucket. • If type is softwarePackage, sub_type indicates a software package repository, such as BinObs or BinDevCloud (CodeArts Release Repo). Enumerated values: <ul style="list-style-type: none"> • BinObs • BinDevCloud • GitLab • GitHub • Bitbucket

Parameter	Mandatory	Type	Description
url	No	String	URL. <ul style="list-style-type: none"> If type is image, url indicates an image address. If type is code, url indicates a Git address. If type is softwarePackage, url indicates a software package address.

Table 4-88 Repo

Parameter	Mandatory	Type	Description
auth_name	No	String	Authorization name.
branch	No	String	Branch.
namespace	No	String	Namespace, which must be Base64-encoded.

Table 4-89 ResourceLimitForUpgrade

Parameter	Mandatory	Type	Description
cpu_limit	No	String	CPU limit. Enumerated values: <ul style="list-style-type: none"> 500m 1000m 2000m
memory_limit	No	String	Memory limit. Enumerated values: <ul style="list-style-type: none"> 1Gi 2Gi 4Gi

Table 4-90 ActionOnComponentBuild

Parameter	Mandatory	Type	Description
archive	No	Archive object	Place where build products are archived for management.

Parameter	Mandatory	Type	Description
parameters	No	map<string, object>	Additional parameters. Options: <ul style="list-style-type: none"> • base_image: base image address. • build_cmd: custom build command. • dockerfile_path: custom dockerfile path. • dockerfile_content: custom dockerfile content. • artifact_name: product to be run after the Java multi-module build. The value ends with .jar.

Table 4-91 Archive

Parameter	Mandatory	Type	Description
artifact_name space	No	String	SWR organization for product management.

Response Parameters

Status code: 200

Table 4-92 Response body parameters

Parameter	Type	Description
job_id	String	Job ID.

Example Request

- Perform operations (such as deploy, restart, stop, start, and configure) on a component.

POST https://{endpoint}/v1/{project_id}/cae/applications/{application_id}/components/{component_id}/action

```
{
  "api_version": "v1",
  "kind": "Action",
  "metadata": {
    "name": "deploy/restart/stop/start/configure",
    "annotations": {
      "version": "1.0.0"
    }
  }
}
```

- ```
}
}
```
- **Upgrade the component version to 1.0.1.**  
POST `https://{endpoint}/v1/{project_id}/cae/applications/{application_id}/components/{component_id}/action`  

```
{
 "api_version": "v1",
 "kind": "Action",
 "metadata": {
 "name": "upgrade",
 "annotations": {
 "version": "1.0.1"
 }
 },
 "spec": {
 "source": {
 "type": "image",
 "url": "nginx:stable-alpine-perl"
 }
 }
}
```
  - **Increase the number of instances to 2 for the component.**  
POST `https://{endpoint}/v1/{project_id}/cae/applications/{application_id}/components/{component_id}/action`  

```
{
 "api_version": "v1",
 "kind": "Action",
 "metadata": {
 "name": "scale",
 "annotations": {
 "version": "1.0.0"
 }
 },
 "spec": {
 "replica": 2
 }
}
```
  - **Roll back the component.**  
POST `https://{endpoint}/v1/{project_id}/cae/applications/{application_id}/components/{component_id}/action`  

```
{
 "api_version": "v1",
 "kind": "Action",
 "metadata": {
 "name": "rollback",
 "annotations": {
 "version": "1.0.0"
 }
 },
 "spec": {
 "snapshot_index": 1
 }
}
```

## Example Response

**Status code: 200**

The request is successful.

```
{
 "job_id": "xxx"
}
```



## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.3.7 Obtaining the Component Snapshot List

### Function

This API is used to obtain the component snapshot list.

### URI

GET /v1/{project\_id}/cae/applications/{application\_id}/components/{component\_id}/snapshots

**Table 4-93** Path parameters

| Parameter      | Mandatory | Type   | Description                                              |
|----------------|-----------|--------|----------------------------------------------------------|
| project_id     | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |
| application_id | Yes       | String | Application ID.                                          |
| component_id   | Yes       | String | Component ID.                                            |

## Request Parameters

**Table 4-94** Request header parameters

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token            | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p>                                                                                                                                                                                                                    |
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

## Response Parameters

**Status code: 200**

**Table 4-95** Response body parameters

| Parameter   | Type                                          | Description                                                                                                                                    |
|-------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| api_version | String                                        | API version. Fixed value: v1.<br>Enumerated value:<br><ul style="list-style-type: none"> <li>• <b>v1</b></li> </ul>                            |
| kind        | String                                        | API type. Fixed value: ComponentSnapshot.<br>Enumerated value:<br><ul style="list-style-type: none"> <li>• <b>ComponentSnapshot</b></li> </ul> |
| items       | Array of <b>ComponentSnapshotItem</b> objects | Snapshot list.                                                                                                                                 |

**Table 4-96** ComponentSnapshotItem

| Parameter    | Type                                   | Description     |
|--------------|----------------------------------------|-----------------|
| component_id | String                                 | Component ID.   |
| index        | Integer                                | Snapshot index. |
| context      | <b>ComponentSnapshotContext</b> object | Context.        |
| created_at   | String                                 | Creation time.  |
| updated_at   | String                                 | Update time.    |

**Table 4-97** ComponentSnapshotContext

| Parameter          | Type    | Description                    |
|--------------------|---------|--------------------------------|
| app_id             | String  | Application ID.                |
| available_replicas | Integer | Number of available instances. |
| build              | String  | Component build information.   |
| build_id           | String  | Build task ID.                 |
| build_log_id       | String  | Build log ID.                  |
| env_id             | String  | Environment ID.                |
| id                 | String  | Component ID.                  |
| image_url          | String  | Image address.                 |

| Parameter        | Type    | Description                                                                                                                                                                                                                                                                                                                                                                 |
|------------------|---------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| job_id           | String  | Job ID.                                                                                                                                                                                                                                                                                                                                                                     |
| log_group_id     | String  | ID of an LTS log group.                                                                                                                                                                                                                                                                                                                                                     |
| log_stream_id    | String  | ID of an LTS log stream.                                                                                                                                                                                                                                                                                                                                                    |
| name             | String  | Component name.                                                                                                                                                                                                                                                                                                                                                             |
| operation        | String  | Operation performed on a component.                                                                                                                                                                                                                                                                                                                                         |
| operation_status | String  | Status of the operation performed on a component.                                                                                                                                                                                                                                                                                                                           |
| replica          | Integer | Number of instances.                                                                                                                                                                                                                                                                                                                                                        |
| resource_limit   | String  | Component specifications.                                                                                                                                                                                                                                                                                                                                                   |
| runtime          | String  | Language or runtime.<br>Enumerated values: <ul style="list-style-type: none"> <li>• <b>Docker</b></li> <li>• <b>Java8</b></li> <li>• <b>Java11</b></li> <li>• <b>Java17</b></li> <li>• <b>Tomcat8</b></li> <li>• <b>Tomcat9</b></li> <li>• <b>Python3</b></li> <li>• <b>Nodejs8</b></li> <li>• <b>Nodejs14</b></li> <li>• <b>Nodejs16</b></li> <li>• <b>Php7</b></li> </ul> |
| source           | String  | Component source.                                                                                                                                                                                                                                                                                                                                                           |
| status           | String  | Component status.                                                                                                                                                                                                                                                                                                                                                           |
| version          | String  | Component version.                                                                                                                                                                                                                                                                                                                                                          |
| created_at       | String  | Creation time.                                                                                                                                                                                                                                                                                                                                                              |
| updated_at       | String  | Update time.                                                                                                                                                                                                                                                                                                                                                                |

## Example Request

Obtain the component snapshot list.

```
GET https://{endpoint}/v1/{project_id}/cae/applications/{application_id}/components/{component_id}/snapshots
```

## Example Response

**Status code: 200**

The request is successful.

```
{
 "api_version": "v1",
 "kind": "ComponentSnapshot",
 "items": [{
 "component_id": "79229698-e2ec-47db-81df-599b59a9fc17",
 "index": 1,
 "context": {
 "app_id": "d65fd1d7-9df8-424f-ba4d-44b1bb7cfc05",
 "available_replica": 1,
 "build": "{\"archive\":{\"artifact_namespace\":\"cae-test\"},\"parameters\":{\"base_image\":\"\"}}",
 "env_id": "7eb2f920-e183-4d4e-9b9d-fffb875ae520",
 "id": "79229698-e2ec-47db-81df-599b59a9fc17",
 "image_url": "nginx:stable-alpine-perl",
 "job_id": "4681ac3f-5771-4d98-97ad-9e25171b26b8",
 "log_group_id": "96fe4c34-578a-4ea8-8e77-ee59bf8a0fd1",
 "log_stream_id": "9c024ad2-5c80-45ee-8651-5f2bd89d3c7e",
 "name": "test",
 "operation": "deploy",
 "operation_status": "started",
 "replica": 1,
 "resource_limit": "{\"cpu_limit\":\"500m\",\"memory_limit\":\"1Gi\"}",
 "runtime": "Docker",
 "source": "{\"type\":\"image\",\"url\":\"nginx:stable-alpine-perl\"}",
 "status": "running",
 "version": "1.0.0",
 "created_at": "2023-02-27T06:22:46.812877Z",
 "updated_at": "2023-02-27T06:22:46.812877Z"
 },
 "created_at": "2023-02-27T08:26:39.362226Z",
 "updated_at": "2023-02-27T08:26:39.362226Z"
 }]
}
```

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.3.8 Obtaining the Component Instance List

### Function

This API is used to obtain the component instance list.

### URI

GET /v1/{project\_id}/cae/applications/{application\_id}/components/{component\_id}/instances

**Table 4-98** Path parameters

| Parameter      | Mandatory | Type   | Description                                              |
|----------------|-----------|--------|----------------------------------------------------------|
| project_id     | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |
| application_id | Yes       | String | Application ID.                                          |
| component_id   | Yes       | String | Component ID.                                            |

## Request Parameters

**Table 4-99** Request header parameters

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token            | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p>                                                                                                                                                                                                                    |
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |

| Parameter        | Mandatory | Type   | Description                                                                                                                                                                                                                                                         |
|------------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Environment-ID | Yes       | String | Environment ID. <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul> |

## Response Parameters

Status code: 200

**Table 4-100** Response body parameters

| Parameter   | Type                                      | Description                                                                                                                                         |
|-------------|-------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| api_version | String                                    | API version. Fixed value: v1.<br>Enumerated values: <ul style="list-style-type: none"> <li><b>v1</b></li> </ul>                                     |
| kind        | String                                    | API type. Fixed value: ComponentConfiguration.<br>Enumerated value: <ul style="list-style-type: none"> <li><b>ComponentConfiguration</b></li> </ul> |
| items       | Array of <a href="#">Instance</a> objects | Component instance list.                                                                                                                            |

**Table 4-101** Instance

| Parameter | Type   | Description    |
|-----------|--------|----------------|
| id        | String | Instance ID.   |
| name      | String | Instance name. |

| Parameter | Type   | Description                                                                                                                                                                                                            |
|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| status    | String | Instance status.<br>Enumerated values: <ul style="list-style-type: none"> <li>• <b>creating</b></li> <li>• <b>running</b></li> <li>• <b>abnormal</b></li> <li>• <b>failed</b></li> <li>• <b>terminating</b></li> </ul> |

## Example Request

Obtain the component instance list.

```
GET https://{endpoint}/v1/{project_id}/cae/applications/{application_id}/components/{component_id}/instances
```

## Example Response

**Status code: 200**

The request is successful.

```
{
 "api_version": "v1",
 "kind": "ComponentInstance",
 "items": [{
 "id": "d59a645b-730d-4a1a-951f-822a71dcdb9d",
 "name": "test-image-5787bf845c-wzz99",
 "status": "creating"
 }]
}
```

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

# 4.4 Component Configuration



## 4.4.1 Obtaining the Component Configuration List

### Function

This API is used to obtain the component configuration list.

### URI

GET /v1/{project\_id}/cae/applications/{application\_id}/components/{component\_id}/configurations

**Table 4-102** Path parameters

| Parameter      | Mandatory | Type   | Description                                              |
|----------------|-----------|--------|----------------------------------------------------------|
| project_id     | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |
| application_id | Yes       | String | Application ID.                                          |
| component_id   | Yes       | String | Component ID.                                            |

### Request Parameters

**Table 4-103** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                 |
|--------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p> |

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

## Response Parameters

Status code: 200

**Table 4-104** Response body parameters

| Parameter   | Type                                  | Description                                    |
|-------------|---------------------------------------|------------------------------------------------|
| api_version | String                                | API version. Fixed value: v1.                  |
| kind        | String                                | API type. Fixed value: ComponentConfiguration. |
| items       | Array of <b>Configuration</b> objects | Component configuration list.                  |

**Table 4-105** Configuration

| Parameter    | Type                                                           | Description                                                                                                                                                                                                                                                                                         |
|--------------|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| data         | <a href="#">ListComponentConfigurationsResponseData</a> object | Component configuration data.                                                                                                                                                                                                                                                                       |
| operated_at  | String                                                         | Operation time.                                                                                                                                                                                                                                                                                     |
| operation_id | String                                                         | Operator ID.                                                                                                                                                                                                                                                                                        |
| type         | String                                                         | Component configuration type.<br>Enumerated values: <ul style="list-style-type: none"> <li>• rds</li> <li>• cse</li> <li>• env</li> <li>• access</li> <li>• scaling</li> <li>• volume</li> <li>• healthCheck</li> <li>• lifecycle</li> <li>• apm2</li> <li>• log</li> <li>• customMetric</li> </ul> |
| is_activated | Boolean                                                        | Whether the configuration takes effect.                                                                                                                                                                                                                                                             |

**Table 4-106** ListComponentConfigurationsResponseData

| Parameter | Type                                                 | Description                                  |
|-----------|------------------------------------------------------|----------------------------------------------|
| spec      | <a href="#">ConfigurationResponseDataSpec</a> object | Component configuration data specifications. |
| metadata  | <a href="#">ConfigurationDataMetadata</a> object     | Component configuration metadata.            |

**Table 4-107** ConfigurationResponseDataSpec

| Parameter           | Type                | Description                                                                                                                                                                                                                                                                                                |
|---------------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| rds_id              | String              | RDS DB instance ID.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>rds</b> .                                                                                                                                                                                       |
| rds_db_name         | String              | RDS database name.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>rds</b> .                                                                                                                                                                                        |
| rds_address         | String              | RDS database address.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>rds</b> .                                                                                                                                                                                     |
| rds_username        | String              | RDS database username.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>rds</b> .                                                                                                                                                                                    |
| rds_password        | String              | RDS database password.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>rds</b> .                                                                                                                                                                                    |
| rds_port            | String              | RDS database port.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>rds</b> .                                                                                                                                                                                        |
| config_center_addr  | String              | Address of the CSE configuration center.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>cse</b> .                                                                                                                                                                  |
| service_center_addr | String              | Address for service registry and discovery.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>cse</b> .                                                                                                                                                               |
| cse_id              | String              | CSE engine ID.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>cse</b> .                                                                                                                                                                                            |
| envs                | map<string, object> | Environment variable.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>env</b> .<br>Common environment variables: <ul style="list-style-type: none"> <li>• TZ: time zone. For example, set <b>Asia/Shanghai</b> for GMT+08:00.</li> <li>• LANG: language.</li> </ul> |
| ip                  | String              | EIP, which is returned when no domain name is configured.                                                                                                                                                                                                                                                  |

| Parameter         | Type                                                           | Description                                                                                                                                                                                                                                               |
|-------------------|----------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| items             | Array of <a href="#">AccessConfigurationDataItems</a> objects  | Access configuration list.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>access</b> .                                                                                                                            |
| scale_strategy    | String                                                         | AS policy type.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>scaling</b> .<br>Enumerated values: <ul style="list-style-type: none"> <li>• <b>metric</b></li> <li>• <b>time</b></li> <li>• <b>mix</b></li> </ul> |
| max_replica_count | Integer                                                        | Maximum number of instances that can be scaled in an AS policy.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>scaling</b> .                                                                                      |
| min_replica_count | Integer                                                        | Minimum number of instances that can be scaled in an AS policy.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>scaling</b> .                                                                                      |
| advanced          | <a href="#">ScaleConfigurationDataAdvanced</a> object          | Advanced settings of an AS policy.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>scaling</b> .                                                                                                                   |
| triggers          | Array of <a href="#">ScaleConfigurationDataTrigger</a> objects | Trigger list of an AS policy.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>scaling</b> .                                                                                                                        |
| volumes           | Array of <a href="#">VolumeConfigurationDataVolume</a> objects | Cloud storage configuration list.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>volume</b> .                                                                                                                     |
| livenessProbe     | <a href="#">HealthCheckConfigurationLivenessProbe</a> object   | Liveness probe configuration for health check.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>healthCheck</b> .                                                                                                   |
| startupProbe      | <a href="#">HealthCheckConfigurationStartupProbe</a> object    | Startup probe configuration for health check.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>healthCheck</b> .                                                                                                    |

| Parameter       | Type                                                          | Description                                                                                                                                                         |
|-----------------|---------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| readinessProbe  | <a href="#">HealthCheckConfigurationReadinessProbe</a> object | Readiness probe configuration for health check.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>healthCheck</b> .            |
| postStart       | <a href="#">postStart</a> object                              | Post-startup processing configured for lifecycle management.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>lifecycle</b> . |
| preStop         | <a href="#">preStop</a> object                                | Pre-stop processing configured for lifecycle management.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>lifecycle</b> .     |
| log_paths       | Array of strings                                              | Custom log path array.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>log</b> .                                             |
| instrumentation | String                                                        | Agent injection mode.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>apm2</b> .                                             |
| apm_application | String                                                        | APM 2.0 application.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>apm2</b> .                                              |
| type            | String                                                        | Monitoring system type, including <b>apm2</b> .<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>apm2</b> .                   |
| app_name        | String                                                        | APM 2.0 component.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>apm2</b> .                                                |
| instance_name   | String                                                        | APM 2.0 instance.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>apm2</b> .                                                 |
| env_name        | String                                                        | APM 2.0 environment.<br>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>apm2</b> .                                              |

| Parameter         | Type             | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| image_pull_policy | String           | <p>Agent image update policy, which has been discarded and migrated to the monitoring system.</p> <ul style="list-style-type: none"> <li>• <b>Always:</b> automatic upgrade upon restart. The system downloads the image upon each restart.</li> <li>• <b>IfNotPresent:</b> manual upgrade. Download an image only when no local image is available.</li> </ul> <p>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>apm2</b>.</p> |
| version           | String           | <p>Enhanced Agent version, which has been discarded and migrated to the monitoring system.</p> <p>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>apm2</b>.</p>                                                                                                                                                                                                                                                                  |
| access_key        | String           | <p>APM 2.0 access key, which has been discarded and migrated to the monitoring system.</p> <p>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>apm2</b>.</p>                                                                                                                                                                                                                                                                      |
| access_value      | String           | <p>APM 2.0 access key value, which has been discarded and migrated to the monitoring system.</p> <p>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>apm2</b>.</p>                                                                                                                                                                                                                                                                |
| business          | String           | <p>APM 2.0 application, which is the same as <b>apm_application</b> and has been discarded.</p> <p>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>apm2</b>.</p>                                                                                                                                                                                                                                                                 |
| path              | String           | <p>Collection path for custom metric monitoring.</p> <p>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>customMetric</b>.</p>                                                                                                                                                                                                                                                                                                    |
| port              | String           | <p>Collection port for custom metric monitoring.</p> <p>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>customMetric</b>.</p>                                                                                                                                                                                                                                                                                                    |
| metrics           | Array of strings | <p>Metric for custom monitoring.</p> <p>This parameter is returned when <b>type</b> under <b>Configuration</b> is set to <b>customMetric</b>.</p>                                                                                                                                                                                                                                                                                                                    |

**Table 4-108** AccessConfigurationDataItems

| Parameter      | Type                                                     | Description                                                                                                                                                      |
|----------------|----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| type           | String                                                   | Access mode.<br>Enumerated values: <ul style="list-style-type: none"> <li>• <b>ClusterIP</b></li> <li>• <b>LoadBalancer</b></li> <li>• <b>Ingress</b></li> </ul> |
| domain_names   | String                                                   | Domain name for private network access.                                                                                                                          |
| access_control | <a href="#">AccessControl</a> object                     | Access control configuration. Blacklists and whitelists can be configured.                                                                                       |
| ports          | Array of <a href="#">AccessConfigurationPort</a> objects | Access information, such as the port, protocol, certificate, and URL.                                                                                            |

**Table 4-109** AccessControl

| Parameter | Type             | Description                                                                                                                                                                                                                                     |
|-----------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| black     | Array of strings | Blacklist array. <ul style="list-style-type: none"> <li>• Each line contains an IP address or a CIDR block and ends with a line break.</li> <li>• You can add a maximum of 300 IP addresses or CIDR blocks in each IP address group.</li> </ul> |
| white     | Array of strings | Whitelist array. <ul style="list-style-type: none"> <li>• Each line contains an IP address or a CIDR block and ends with a line break.</li> <li>• You can add a maximum of 300 IP addresses or CIDR blocks in each IP address group.</li> </ul> |

**Table 4-110** AccessConfigurationPort

| Parameter   | Type    | Description     |
|-------------|---------|-----------------|
| target_port | Integer | Listening port. |
| port        | Integer | Access port.    |



| Parameter           | Type                                                         | Description                                                                                                                                                                                                              |
|---------------------|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| protocol            | String                                                       | Protocol. Load balancing supports TCP, HTTP, and HTTPS while route configuration supports HTTP and HTTPS.<br>Enumerated values: <ul style="list-style-type: none"> <li>• TCP</li> <li>• HTTP</li> <li>• HTTPS</li> </ul> |
| default_certificate | String                                                       | Default certificate, which is configured when the access mode is set to <b>Ingress</b> and protocol is set to <b>HTTPS</b> . It will be used if SNI is not configured.                                                   |
| certificate         | String                                                       | Certificate.                                                                                                                                                                                                             |
| policy              | String                                                       | Security policy.<br>Enumerated values: <ul style="list-style-type: none"> <li>• <b>tls-1-2-strict</b></li> <li>• <b>tls-1-2</b></li> <li>• <b>tls-1-1</b></li> <li>• <b>tls-1-0</b></li> </ul>                           |
| paths               | Array of <a href="#">AccessConfigurationHttpPath</a> objects | Path and domain name for matching.                                                                                                                                                                                       |
| elb_id              | String                                                       | Selected ELB ID.                                                                                                                                                                                                         |

**Table 4-111** AccessConfigurationHttpPath

| Parameter      | Type   | Description                                                                                                                                                                                                        |
|----------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| hostname       | String | Domain name. If it is left blank, the IP address is used.                                                                                                                                                          |
| path           | String | URL.                                                                                                                                                                                                               |
| url_match_mode | String | URL path matching mode. Options: STARTS_WITH, REGEX, and EQUAL_TO.<br>Enumerated values: <ul style="list-style-type: none"> <li>• <b>STARTS_WITH</b></li> <li>• <b>REGEX</b></li> <li>• <b>EQUAL_TO</b></li> </ul> |

**Table 4-112** ScaleConfigurationDataAdvanced

| Parameter                       | Type    | Description                            |
|---------------------------------|---------|----------------------------------------|
| scaledown_stabilization_seconds | Integer | Cooling time window for scale-in.      |
| scaledown_rate                  | Integer | Scale-in step.                         |
| scaleup_stabilization_seconds   | Integer | Cooling time window for scale-out.     |
| scaleup_rate                    | Integer | Scale-out step.                        |
| disable_scaledown               | Boolean | Whether to disable automatic scale-in. |

**Table 4-113** ScaleConfigurationDataTrigger

| Parameter | Type                                      | Description                                                                                                                                       |
|-----------|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| type      | String                                    | Metric type.<br>Enumerated values: <ul style="list-style-type: none"> <li>• <b>cpu</b></li> <li>• <b>memory</b></li> <li>• <b>cron</b></li> </ul> |
| metadata  | <a href="#">ScalingTriggerMeta</a> object | Metadata.                                                                                                                                         |

**Table 4-114** ScalingTriggerMeta

| Parameter | Type   | Description                                                                                                                                                                          |
|-----------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| type      | String | Data type, which can only be <b>Utilization</b> .<br>This parameter is mandatory when <b>type</b> under <b>ScaleConfigurationDataTrigger</b> is set to <b>cpu</b> or <b>memory</b> . |
| value     | String | Threshold for triggering scaling.<br>This parameter is mandatory when <b>type</b> under <b>ScaleConfigurationDataTrigger</b> is set to <b>cpu</b> or <b>memory</b> .                 |

| Parameter   | Type                                         | Description                                                                                                                                                                                                                                                             |
|-------------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| period_type | String                                       | Validity period.<br>This parameter is mandatory when <b>type</b> under <b>ScaleConfigurationDataTrigger</b> is set to <b>cron</b> .<br>Enumerated values: <ul style="list-style-type: none"> <li>• <b>day</b></li> <li>• <b>week</b></li> <li>• <b>month</b></li> </ul> |
| schedulers  | Array of <b>CronTriggerScheduler</b> objects | Time when the scaling is triggered and number of instances triggered in each period.<br>This parameter is mandatory when <b>type</b> under <b>ScaleConfigurationDataTrigger</b> is set to <b>cron</b> .                                                                 |

**Table 4-115** CronTriggerScheduler

| Parameter      | Type    | Description                                                         |
|----------------|---------|---------------------------------------------------------------------|
| cron           | String  | Trigger time, which is a cron expression consisting of five fields. |
| target_replica | Integer | Number of required instances.                                       |

**Table 4-116** VolumeConfigurationDataVolume

| Parameter         | Type   | Description                                                                                                                                              |
|-------------------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| volume_id         | String | Cloud storage ID.                                                                                                                                        |
| resource_name     | String | Cloud storage name.                                                                                                                                      |
| resource_type     | String | Resource type.<br>Enumerated values: <ul style="list-style-type: none"> <li>• <b>obs</b></li> </ul>                                                      |
| resource_sub_type | String | Resource sub-type.<br>Enumerated values: <ul style="list-style-type: none"> <li>• <b>object_bucket</b></li> <li>• <b>parallel_file_system</b></li> </ul> |
| umask             | String | Default permission on a directory or file. SFS 3.0 cloud storage does not support this parameter. Default value: <b>0027</b> .                           |

| Parameter  | Type                                                          | Description                         |
|------------|---------------------------------------------------------------|-------------------------------------|
| mount_info | Array of <a href="#">VolumeConfigurationMountInfo</a> objects | Cloud storage mounting information. |

**Table 4-117** VolumeConfigurationMountInfo

| Parameter   | Type   | Description                                                                                                                                             |
|-------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| path        | String | Container mount path.                                                                                                                                   |
| sub_path    | String | Sub-path.                                                                                                                                               |
| access_mode | String | Read or write permission.<br>Enumerated values: <ul style="list-style-type: none"> <li>• <b>ReadWriteMany</b></li> <li>• <b>ReadOnlyMany</b></li> </ul> |

**Table 4-118** HealthCheckConfigurationLivenessProbe

| Parameter           | Type                                                     | Description                                                       |
|---------------------|----------------------------------------------------------|-------------------------------------------------------------------|
| periodSeconds       | Integer                                                  | Detection period. Unit: second.                                   |
| initialDelaySeconds | Integer                                                  | Latency. Unit: second.                                            |
| timeoutSeconds      | Integer                                                  | Timeout. Unit: second.                                            |
| successThreshold    | Integer                                                  | Success threshold.                                                |
| failureThreshold    | Integer                                                  | Failure threshold.                                                |
| httpGet             | <a href="#">HealthCheckConfigurationHttpGet</a> object   | HTTP request check information in the health check configuration. |
| tcpSocket           | <a href="#">HealthCheckConfigurationTcpSocket</a> object | TCP port check information in the health check configuration.     |

| Parameter | Type                                                | Description                                                  |
|-----------|-----------------------------------------------------|--------------------------------------------------------------|
| exec      | <a href="#">HealthCheckConfigurationExec</a> object | Command check information in the health check configuration. |

**Table 4-119** HealthCheckConfigurationStartupProbe

| Parameter           | Type                                                     | Description                                                       |
|---------------------|----------------------------------------------------------|-------------------------------------------------------------------|
| periodSeconds       | Integer                                                  | Detection period. Unit: second.                                   |
| initialDelaySeconds | Integer                                                  | Latency. Unit: second.                                            |
| timeoutSeconds      | Integer                                                  | Timeout. Unit: second.                                            |
| successThreshold    | Integer                                                  | Success threshold.                                                |
| failureThreshold    | Integer                                                  | Failure threshold.                                                |
| httpGet             | <a href="#">HealthCheckConfigurationHttpGet</a> object   | HTTP request check information in the health check configuration. |
| tcpSocket           | <a href="#">HealthCheckConfigurationTcpSocket</a> object | TCP port check information in the health check configuration.     |
| exec                | <a href="#">HealthCheckConfigurationExec</a> object      | Command check information in the health check configuration.      |

**Table 4-120** HealthCheckConfigurationReadinessProbe

| Parameter           | Type    | Description                     |
|---------------------|---------|---------------------------------|
| periodSeconds       | Integer | Detection period. Unit: second. |
| initialDelaySeconds | Integer | Latency. Unit: second.          |
| timeoutSeconds      | Integer | Timeout. Unit: second.          |

| Parameter        | Type                                                     | Description                                                       |
|------------------|----------------------------------------------------------|-------------------------------------------------------------------|
| successThreshold | Integer                                                  | Success threshold.                                                |
| failureThreshold | Integer                                                  | Failure threshold.                                                |
| httpGet          | <a href="#">HealthCheckConfigurationHttpGet</a> object   | HTTP request check information in the health check configuration. |
| tcpSocket        | <a href="#">HealthCheckConfigurationTcpSocket</a> object | TCP port check information in the health check configuration.     |
| exec             | <a href="#">HealthCheckConfigurationExec</a> object      | Command check information in the health check configuration.      |

**Table 4-121** HealthCheckConfigurationHttpGet

| Parameter | Type   | Description                                                                                               |
|-----------|--------|-----------------------------------------------------------------------------------------------------------|
| path      | String | URL.                                                                                                      |
| port      | String | Port.                                                                                                     |
| scheme    | String | Protocol.<br>Enumerated values: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul> |

**Table 4-122** HealthCheckConfigurationTcpSocket

| Parameter | Type   | Description |
|-----------|--------|-------------|
| port      | String | Port.       |

**Table 4-123** HealthCheckConfigurationExec

| Parameter | Type             | Description      |
|-----------|------------------|------------------|
| command   | Array of strings | Shell statement. |

**Table 4-124** postStart

| Parameter | Type                              | Description         |
|-----------|-----------------------------------|---------------------|
| exec      | LifeCycleConfigurationExec object | Command to execute. |

**Table 4-125** preStop

| Parameter | Type                              | Description         |
|-----------|-----------------------------------|---------------------|
| exec      | LifeCycleConfigurationExec object | Command to execute. |

**Table 4-126** LifeCycleConfigurationExec

| Parameter | Type             | Description      |
|-----------|------------------|------------------|
| command   | Array of strings | Shell statement. |

**Table 4-127** ConfigurationDataMetadata

| Parameter   | Type               | Description                                                                                                                                                                                                                                                                                                          |
|-------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| annotations | Map<String,String> | Additional parameters.<br>Assume that you need to use the weighted round robin algorithm for load balancing and disable health check. Configuration example: <ul style="list-style-type: none"> <li>"kubernetes.io/elb.health-check-flag": "off"</li> <li>"kubernetes.io/elb.lb-algorithm": "ROUND_ROBIN"</li> </ul> |

## Example Request

Obtain the component configuration list.

```
GET https://{endpoint}/v1/{project_id}/cae/applications/{application_id}/components/{component_id}/configurations
```

## Example Response

**Status code: 200**

The request is successful.

```
{
 "api_version": "v1",
 "kind": "ComponentConfiguration",
 "items": [{
 "type": "env",
 "data": {
 "spec": {
 "envs": {
 "TZ": "Asia/Shanghai"
 },
 "env_references": [{
 "env_name": "test",
 "value_from": {
 "name": "test",
 "reference_type": "dewSecret"
 }
 }
]
 }
 },
 "operation_id": "68e82e30-190d-40b2-9680-98a66ccb2f8f",
 "operated_at": "2023-02-16T06:35:46.23126Z",
 "is_activated": true
}, {
 "type": "volume",
 "data": {
 "spec": {
 "volumes": [{
 "volume_id": "bef119d0-c7d1-4b58-9794-8b74faf80a59",
 "resource_name": "test-nacos",
 "resource_type": "",
 "resource_sub_type": "object_bucket",
 "mount_info": [{
 "path": "/tmp",
 "access_mode": "ReadWriteMany",
 "create_time": "2023-02-16T03:22:59.599Z"
 }
]
 }, {
 "volume_id": "a061934d-52e3-4b36-aea7-6c51879f84c9",
 "resource_name": "test",
 "resource_type": "",
 "resource_sub_type": "parallel_file_system",
 "mount_info": [{
 "path": "/temp",
 "access_mode": "ReadWriteMany",
 "create_time": "2023-02-16T03:25:08.841Z"
 }
]
]
}
},
 "operation_id": "68e82e30-190d-40b2-9680-98a66ccb2f8f",
 "operated_at": "2023-02-16T06:35:46.23126Z",
 "is_activated": true
}, {
 "type": "rds",
 "data": {
 "spec": {
 "rds_id": "a5fdee4cf88c4277a68688a014f444bdin01",
 "rds_port": "",
 "rds_address": "100.xx.xx.xxx",
 "rds_db_name": "cae",
 "rds_password": "xxx",
 "rds_username": "cae"
 }
 },
 "operation_id": "b4ce410c-3ac3-40ae-9f11-0c8b98c2df19",
 "operated_at": "2023-02-16T02:14:03.416282Z",
 "is_activated": true
}, {
 "type": "scaling",
```



```

"data" : {
 "spec" : {
 "scale_strategy" : "mix",
 "max_replica_count" : 2,
 "min_replica_count" : 1,
 "advanced" : {
 "scaledown_stabilization_seconds" : 300,
 "scaledown_rate" : 99,
 "scaleup_stabilization_seconds" : 0,
 "scaleup_rate" : 4,
 "disable_scaledown" : false
 },
 "triggers" : [{
 "metadata" : {
 "period_type" : "day",
 "schedulers" : [{
 "cron" : "00 01 * * *",
 "target_replica" : 2
 }, {
 "cron" : "00 02 * * *",
 "target_replica" : 1
 }]
 },
 "type" : "cron"
 }, {
 "metadata" : {
 "type" : "Utilization",
 "value" : "10"
 },
 "type" : "cpu"
 }, {
 "metadata" : {
 "type" : "Utilization",
 "value" : "20"
 },
 "type" : "memory"
 }]
 },
 "operation_id" : "02c81e5a-251b-4921-878e-a8f78efbadd1",
 "operated_at" : "2023-02-16T07:03:07.711734Z",
 "is_activated" : true
}, {
 "type" : "access",
 "data" : {
 "metadata" : {
 "annotations" : {
 "deployBackend" : "k8s",
 "kubernetes.io/elb.health-check-flag" : "off",
 "kubernetes.io/elb.lb-algorithm" : "ROUND_ROBIN"
 }
 },
 "spec" : {
 "ip" : "100.xx.xx.xxx",
 "items" : [{
 "type" : "ClusterIP",
 "domain_names" : ["test-test-config"],
 "ports" : [{
 "ip" : "",
 "name" : "loadBalancer-5x095cix5deo",
 "target_port" : 80,
 "port" : 8080,
 "protocol" : "TCP"
 }]
 }]
 },
 "type" : "LoadBalancer",
 "access_control" : {
 "type" : "white",
 "ip_list" : ["1.1.1.1"]
 }
 }
}

```

```

 },
 "elb_id" : "f5de88cc-64be-4f70-ac17-db745eb12345",
 "ports" : [{
 "ip" : "",
 "name" : "loadBalancer-0yyp5ud3w2pa",
 "target_port" : 80,
 "port" : 8080,
 "protocol" : "TCP"
 }]
 }]
},
"ref" : {
 "id" : "f5de88cc-64be-4f70-ac17-db745eb76e67"
}
},
"operation_id" : "68e82e30-190d-40b2-9680-98a66ccb2f8f",
"operated_at" : "2023-02-16T06:35:46.23126Z",
"is_activated" : true
}, {
 "type" : "lifecycle",
 "data" : {
 "api_version" : "v1",
 "kind" : "lifecycle",
 "spec" : {
 "postStart" : {
 "exec" : {
 "command" : ["/bin/sh", "-c", "echo service start"]
 }
 },
 "preStop" : {
 "exec" : {
 "command" : ["/bin/sh", "-c", "echo service end"]
 }
 }
 }
 }
},
"operation_id" : "69bcf986-6f83-4f43-9ca1-595684ba0748",
"operated_at" : "2023-02-16T07:05:05.610439Z",
"is_activated" : true
}, {
 "type" : "cse",
 "data" : {
 "spec" : {
 "cse_id" : "25779525-1aac-44be-abda-f9164f1b41b8",
 "config_center_addr" : "https://192.168.1.xxx:30103,https://192.168.1.xxx:30103",
 "service_center_addr" : "https://192.168.1.xxx:30100,https://192.168.1.xxx:30100"
 }
 }
},
"operation_id" : "945305ee-8be5-4826-9215-45a0b545ed13",
"operated_at" : "2023-02-16T07:10:38.937075Z",
"is_activated" : true
}, {
 "type" : "healthCheck",
 "data" : {
 "spec" : {
 "livenessProbe" : {
 "httpGet" : {
 "path" : "",
 "port" : 80,
 "scheme" : "HTTP"
 },
 "initialDelaySeconds" : 0,
 "timeoutSeconds" : 1,
 "periodSeconds" : 10,
 "successThreshold" : 1,
 "failureThreshold" : 3
 },
 "readinessProbe" : {
 "httpGet" : {

```

```

 "path" : "",
 "port" : 80,
 "scheme" : "HTTP"
 },
 "initialDelaySeconds" : 0,
 "timeoutSeconds" : 1,
 "periodSeconds" : 10,
 "successThreshold" : 1,
 "failureThreshold" : 3
},
"startupProbe" : {
 "httpGet" : {
 "path" : "",
 "port" : 80,
 "scheme" : "HTTP",
 "httpHeaders" : [{
 "name" : "x-auth-token",
 "value" : "xxx"
 }]
 }
},
"initialDelaySeconds" : 0,
"timeoutSeconds" : 1,
"periodSeconds" : 10,
"successThreshold" : 1,
"failureThreshold" : 3
}
},
"operation_id" : "2361fba9-ee7e-405d-8b05-afc945a43e65",
"operated_at" : "2023-02-16T07:07:23.193231Z",
"is_activated" : true
}, {
 "type" : "customMetric",
 "data" : {
 "metadata" : {
 "annotations" : {
 "deployBackend" : "k8s"
 }
 },
 "created_at" : "0001-01-01T00:00:00Z",
 "updated_at" : "0001-01-01T00:00:00Z"
 },
 "spec" : {
 "port" : 2112,
 "path" : "/metrics",
 "metrics" : ["myapp_processed_ops_total"]
 },
 "ref" : {
 "id" : "17b7f411-5a34-4319-abfc-34f6cf774a44"
 }
},
"operation_id" : "a79a7c8d-6d5e-41ec-892b-973d11f5e835",
"operated_at" : "2023-08-30T11:21:22.222476Z",
"is_activated" : false
}]
}

```

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.4.2 Adding Component Configuration

### Function

This API is used to add component configuration.

### URI

POST /v1/{project\_id}/cae/applications/{application\_id}/components/{component\_id}/configurations

**Table 4-128** Path parameters

| Parameter      | Mandatory | Type   | Description                                              |
|----------------|-----------|--------|----------------------------------------------------------|
| project_id     | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |
| application_id | Yes       | String | Application ID.                                          |
| component_id   | Yes       | String | Component ID.                                            |

### Request Parameters

**Table 4-129** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                 |
|--------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p> |

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

**Table 4-130** Request body parameters

| Parameter   | Mandatory | Type                                               | Description                                                                                                                                                 |
|-------------|-----------|----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| api_version | Yes       | String                                             | <p>API version. Fixed value: v1.<br/>Enumerated value:</p> <ul style="list-style-type: none"> <li><b>v1</b></li> </ul>                                      |
| kind        | Yes       | String                                             | <p>API type. Fixed value: ComponentConfiguration.<br/>Enumerated value:</p> <ul style="list-style-type: none"> <li><b>ComponentConfiguration</b></li> </ul> |
| items       | Yes       | Array of <a href="#">ConfigurationItem</a> objects | Configuration item list.                                                                                                                                    |

**Table 4-131** ConfigurationItem

| Parameter | Mandatory | Type                                     | Description                                                                                                                                                                                                                                                                                         |
|-----------|-----------|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| type      | Yes       | String                                   | Component configuration type.<br>Enumerated values: <ul style="list-style-type: none"> <li>• rds</li> <li>• cse</li> <li>• env</li> <li>• access</li> <li>• scaling</li> <li>• volume</li> <li>• healthCheck</li> <li>• lifecycle</li> <li>• apm2</li> <li>• log</li> <li>• customMetric</li> </ul> |
| data      | Yes       | <a href="#">ConfigurationData</a> object | Component configuration data.                                                                                                                                                                                                                                                                       |

**Table 4-132** ConfigurationData

| Parameter | Mandatory | Type                                                | Description                                  |
|-----------|-----------|-----------------------------------------------------|----------------------------------------------|
| spec      | No        | <a href="#">ConfigurationRequestDataSpec</a> object | Component configuration data specifications. |
| metadata  | No        | <a href="#">ConfigurationDataMetadata</a> object    | Component configuration metadata.            |

**Table 4-133** ConfigurationRequestDataSpec

| Parameter | Mandatory | Type   | Description                                                                                                               |
|-----------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------|
| rds_id    | No        | String | RDS DB instance ID.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>rds</b> . |

| Parameter           | Mandatory | Type   | Description                                                                                                                                       |
|---------------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| rds_db_name         | No        | String | RDS database name.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>rds</b> .                          |
| rds_address         | No        | String | RDS database address.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>rds</b> .                       |
| rds_username        | No        | String | RDS database username.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>rds</b> .                      |
| rds_password        | No        | String | RDS database password.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>rds</b> .                      |
| rds_port            | No        | String | RDS database port.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>rds</b> .                          |
| config_center_addr  | No        | String | Address of the CSE configuration center.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>cse</b> .    |
| service_center_addr | No        | String | Address for service registry and discovery.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>cse</b> . |
| cse_id              | No        | String | CSE engine ID.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>cse</b> .                              |

| Parameter         | Mandatory | Type                                                 | Description                                                                                                                                                                                                                                                                                                         |
|-------------------|-----------|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| envs              | No        | map<string, object>                                  | Environment variable.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>env</b> .<br>Common environment variables:<br><ul style="list-style-type: none"> <li>• TZ: time zone. For example, set <b>Asia/Shanghai</b> for GMT +08:00.</li> <li>• LANG: language.</li> </ul> |
| ip                | No        | String                                               | EIP, which is returned when no domain name is configured.                                                                                                                                                                                                                                                           |
| items             | No        | Array of <b>AccessConfigurationDataItems</b> objects | Access configuration list.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>access</b> .                                                                                                                                                                                 |
| scale_strategy    | No        | String                                               | AS policy type.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>scaling</b> .<br>Enumerated values:<br><ul style="list-style-type: none"> <li>• <b>metric</b></li> <li>• <b>time</b></li> <li>• <b>mix</b></li> </ul>                                                   |
| max_replica_count | No        | Integer                                              | Maximum number of instances that can be scaled in an AS policy.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>scaling</b> .                                                                                                                                           |
| min_replica_count | No        | Integer                                              | Minimum number of instances that can be scaled in an AS policy.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>scaling</b> .                                                                                                                                           |



| Parameter      | Mandatory | Type                                                           | Description                                                                                                                                                              |
|----------------|-----------|----------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| advanced       | No        | <a href="#">ScaleConfigurationDataAdvanced</a> object          | Advanced settings of an AS policy.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>scaling</b> .                             |
| triggers       | No        | Array of <a href="#">ScaleConfigurationDataTrigger</a> objects | Trigger list of an AS policy.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>scaling</b> .                                  |
| volumes        | No        | Array of <a href="#">VolumeConfigurationDataVolume</a> objects | Cloud storage configuration list.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>volume</b> .                               |
| livenessProbe  | No        | <a href="#">HealthCheckConfigurationLivenessProbe</a> object   | Liveness probe configuration for health check.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>healthCheck</b> .             |
| startupProbe   | No        | <a href="#">HealthCheckConfigurationStartupProbe</a> object    | Startup probe configuration for health check.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>healthCheck</b> .              |
| readinessProbe | No        | <a href="#">HealthCheckConfigurationReadinessProbe</a> object  | Readiness probe configuration for health check.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>healthCheck</b> .            |
| postStart      | No        | <a href="#">postStart</a> object                               | Post-startup processing configured for lifecycle management.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>lifecycle</b> . |

| Parameter       | Mandatory | Type                  | Description                                                                                                                                                          |
|-----------------|-----------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| preStop         | No        | <b>preStop</b> object | Pre-stop processing configured for lifecycle management.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>lifecycle</b> . |
| log_paths       | No        | Array of strings      | Custom log path array.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>log</b> .                                         |
| instrumentation | No        | String                | Agent injection mode.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>apm2</b> .                                         |
| path            | No        | String                | Collection path for custom metric monitoring.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>customMetric</b> .         |
| port            | No        | String                | Collection port for custom metric monitoring.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>customMetric</b> .         |
| metrics         | No        | Array of strings      | Metric for custom monitoring.<br>This parameter is mandatory when <b>type</b> under <b>ConfigurationItem</b> is set to <b>customMetric</b> .                         |

**Table 4-134** AccessConfigurationDataItems

| Parameter      | Mandatory | Type                                                     | Description                                                                                                                                                      |
|----------------|-----------|----------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| type           | No        | String                                                   | Access mode.<br>Enumerated values: <ul style="list-style-type: none"> <li>• <b>ClusterIP</b></li> <li>• <b>LoadBalancer</b></li> <li>• <b>Ingress</b></li> </ul> |
| domain_names   | No        | String                                                   | Domain name for private network access.                                                                                                                          |
| access_control | No        | <a href="#">AccessControl</a> object                     | Access control configuration. Blacklists and whitelists can be configured.                                                                                       |
| ports          | No        | Array of <a href="#">AccessConfigurationPort</a> objects | Access information, such as the port, protocol, certificate, and URL.                                                                                            |

**Table 4-135** AccessControl

| Parameter | Mandatory | Type             | Description                                                                                                                                                                                                                                     |
|-----------|-----------|------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| black     | No        | Array of strings | Blacklist array. <ul style="list-style-type: none"> <li>• Each line contains an IP address or a CIDR block and ends with a line break.</li> <li>• You can add a maximum of 300 IP addresses or CIDR blocks in each IP address group.</li> </ul> |
| white     | No        | Array of strings | Whitelist array. <ul style="list-style-type: none"> <li>• Each line contains an IP address or a CIDR block and ends with a line break.</li> <li>• You can add a maximum of 300 IP addresses or CIDR blocks in each IP address group.</li> </ul> |

**Table 4-136** AccessConfigurationPort

| Parameter   | Mandatory | Type    | Description     |
|-------------|-----------|---------|-----------------|
| target_port | No        | Integer | Listening port. |

| Parameter           | Mandatory | Type                                                         | Description                                                                                                                                                                                                                                   |
|---------------------|-----------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| port                | No        | Integer                                                      | Access port.                                                                                                                                                                                                                                  |
| protocol            | No        | String                                                       | Protocol. Load balancing supports TCP, HTTP, and HTTPS while route configuration supports HTTP and HTTPS.<br>Enumerated values: <ul style="list-style-type: none"> <li>• <b>TCP</b></li> <li>• <b>HTTP</b></li> <li>• <b>HTTPS</b></li> </ul> |
| default_certificate | No        | String                                                       | Default certificate, which is configured when the access mode is set to <b>Ingress</b> and protocol is set to <b>HTTPS</b> . It will be used if SNI is not configured.                                                                        |
| certificate         | No        | String                                                       | Certificate.                                                                                                                                                                                                                                  |
| policy              | No        | String                                                       | Security policy.<br>Enumerated values: <ul style="list-style-type: none"> <li>• <b>tls-1-2-strict</b></li> <li>• <b>tls-1-2</b></li> <li>• <b>tls-1-1</b></li> <li>• <b>tls-1-0</b></li> </ul>                                                |
| paths               | No        | Array of <a href="#">AccessConfigurationHttpPath</a> objects | Path and domain name for matching.                                                                                                                                                                                                            |
| elb_id              | No        | String                                                       | Selected ELB ID.                                                                                                                                                                                                                              |

**Table 4-137** AccessConfigurationHttpPath

| Parameter | Mandatory | Type   | Description                                               |
|-----------|-----------|--------|-----------------------------------------------------------|
| hostname  | No        | String | Domain name. If it is left blank, the IP address is used. |
| path      | No        | String | URL.                                                      |

| Parameter      | Mandatory | Type   | Description                                                                                                                                                                                                           |
|----------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| url_match_mode | No        | String | URL path matching mode.<br>Options: STARTS_WITH, REGEX, and EQUAL_TO.<br>Enumerated values: <ul style="list-style-type: none"> <li>• <b>STARTS_WITH</b></li> <li>• <b>REGEX</b></li> <li>• <b>EQUAL_TO</b></li> </ul> |

**Table 4-138** ScaleConfigurationDataAdvanced

| Parameter                       | Mandatory | Type    | Description                            |
|---------------------------------|-----------|---------|----------------------------------------|
| scaledown_stabilization_seconds | No        | Integer | Cooling time window for scale-in.      |
| scaledown_rate                  | No        | Integer | Scale-in step.                         |
| scaleup_stabilization_seconds   | No        | Integer | Cooling time window for scale-out.     |
| scaleup_rate                    | No        | Integer | Scale-out step.                        |
| disable_scaledown               | No        | Boolean | Whether to disable automatic scale-in. |

**Table 4-139** ScaleConfigurationDataTrigger

| Parameter | Mandatory | Type                                      | Description                                                                                                                                       |
|-----------|-----------|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| type      | No        | String                                    | Metric type.<br>Enumerated values: <ul style="list-style-type: none"> <li>• <b>cpu</b></li> <li>• <b>memory</b></li> <li>• <b>cron</b></li> </ul> |
| metadata  | No        | <a href="#">ScalingTriggerMeta</a> object | Metadata.                                                                                                                                         |

**Table 4-140** ScalingTriggerMeta

| Parameter   | Mandatory | Type                                         | Description                                                                                                                                                                                                                                                             |
|-------------|-----------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| type        | No        | String                                       | Data type, which can only be <b>Utilization</b> .<br>This parameter is mandatory when <b>type</b> under <b>ScaleConfigurationDataTrigger</b> is set to <b>cpu</b> or <b>memory</b> .                                                                                    |
| value       | No        | String                                       | Threshold for triggering scaling.<br>This parameter is mandatory when <b>type</b> under <b>ScaleConfigurationDataTrigger</b> is set to <b>cpu</b> or <b>memory</b> .                                                                                                    |
| period_type | No        | String                                       | Validity period.<br>This parameter is mandatory when <b>type</b> under <b>ScaleConfigurationDataTrigger</b> is set to <b>cron</b> .<br>Enumerated values: <ul style="list-style-type: none"> <li>• <b>day</b></li> <li>• <b>week</b></li> <li>• <b>month</b></li> </ul> |
| schedulers  | No        | Array of <b>CronTriggerScheduler</b> objects | Time when the scaling is triggered and number of instances triggered in each period.<br>This parameter is mandatory when <b>type</b> under <b>ScaleConfigurationDataTrigger</b> is set to <b>cron</b> .                                                                 |

**Table 4-141** CronTriggerScheduler

| Parameter      | Mandatory | Type    | Description                                                         |
|----------------|-----------|---------|---------------------------------------------------------------------|
| cron           | No        | String  | Trigger time, which is a cron expression consisting of five fields. |
| target_replica | No        | Integer | Number of required instances.                                       |

**Table 4-142** VolumeConfigurationDataVolume

| Parameter         | Mandatory | Type                                                 | Description                                                                                                                                                 |
|-------------------|-----------|------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| volume_id         | No        | String                                               | Cloud storage ID.                                                                                                                                           |
| resource_name     | No        | String                                               | Cloud storage name.                                                                                                                                         |
| resource_type     | No        | String                                               | Resource type.<br>Enumerated values:<br><ul style="list-style-type: none"> <li>• <b>obs</b></li> </ul>                                                      |
| resource_sub_type | No        | String                                               | Resource sub-type.<br>Enumerated values:<br><ul style="list-style-type: none"> <li>• <b>object_bucket</b></li> <li>• <b>parallel_file_system</b></li> </ul> |
| umask             | No        | String                                               | Default permission on a directory or file. SFS 3.0 cloud storage does not support this parameter. Default value: <b>0027</b> .                              |
| mount_info        | No        | Array of <b>VolumeConfigurationMountInfo</b> objects | Cloud storage mounting information.                                                                                                                         |

**Table 4-143** VolumeConfigurationMountInfo

| Parameter   | Mandatory | Type   | Description                                                                                                                                                |
|-------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| path        | No        | String | Container mount path.                                                                                                                                      |
| sub_path    | No        | String | Sub-path.                                                                                                                                                  |
| access_mode | No        | String | Read or write permission.<br>Enumerated values:<br><ul style="list-style-type: none"> <li>• <b>ReadWriteMany</b></li> <li>• <b>ReadOnlyMany</b></li> </ul> |

**Table 4-144** HealthCheckConfigurationLivenessProbe

| Parameter     | Mandatory | Type    | Description                     |
|---------------|-----------|---------|---------------------------------|
| periodSeconds | No        | Integer | Detection period. Unit: second. |

| Parameter           | Mandatory | Type                                                     | Description                                                       |
|---------------------|-----------|----------------------------------------------------------|-------------------------------------------------------------------|
| initialDelaySeconds | No        | Integer                                                  | Latency. Unit: second.                                            |
| timeoutSeconds      | No        | Integer                                                  | Timeout. Unit: second.                                            |
| successThreshold    | No        | Integer                                                  | Success threshold.                                                |
| failureThreshold    | No        | Integer                                                  | Failure threshold.                                                |
| httpGet             | No        | <a href="#">HealthCheckConfigurationHttpGet</a> object   | HTTP request check information in the health check configuration. |
| tcpSocket           | No        | <a href="#">HealthCheckConfigurationTcpSocket</a> object | TCP port check information in the health check configuration.     |
| exec                | No        | <a href="#">HealthCheckConfigurationExec</a> object      | Command check information in the health check configuration.      |

**Table 4-145** HealthCheckConfigurationStartupProbe

| Parameter           | Mandatory | Type                                                   | Description                                                       |
|---------------------|-----------|--------------------------------------------------------|-------------------------------------------------------------------|
| periodSeconds       | No        | Integer                                                | Detection period. Unit: second.                                   |
| initialDelaySeconds | No        | Integer                                                | Latency. Unit: second.                                            |
| timeoutSeconds      | No        | Integer                                                | Timeout. Unit: second.                                            |
| successThreshold    | No        | Integer                                                | Success threshold.                                                |
| failureThreshold    | No        | Integer                                                | Failure threshold.                                                |
| httpGet             | No        | <a href="#">HealthCheckConfigurationHttpGet</a> object | HTTP request check information in the health check configuration. |



| Parameter | Mandatory | Type                                                     | Description                                                   |
|-----------|-----------|----------------------------------------------------------|---------------------------------------------------------------|
| tcpSocket | No        | <a href="#">HealthCheckConfigurationTcpSocket</a> object | TCP port check information in the health check configuration. |
| exec      | No        | <a href="#">HealthCheckConfigurationExec</a> object      | Command check information in the health check configuration.  |

**Table 4-146** HealthCheckConfigurationReadinessProbe

| Parameter           | Mandatory | Type                                                     | Description                                                       |
|---------------------|-----------|----------------------------------------------------------|-------------------------------------------------------------------|
| periodSeconds       | No        | Integer                                                  | Detection period. Unit: second.                                   |
| initialDelaySeconds | No        | Integer                                                  | Latency. Unit: second.                                            |
| timeoutSeconds      | No        | Integer                                                  | Timeout. Unit: second.                                            |
| successThreshold    | No        | Integer                                                  | Success threshold.                                                |
| failureThreshold    | No        | Integer                                                  | Failure threshold.                                                |
| httpGet             | No        | <a href="#">HealthCheckConfigurationHttpGet</a> object   | HTTP request check information in the health check configuration. |
| tcpSocket           | No        | <a href="#">HealthCheckConfigurationTcpSocket</a> object | TCP port check information in the health check configuration.     |
| exec                | No        | <a href="#">HealthCheckConfigurationExec</a> object      | Command check information in the health check configuration.      |

**Table 4-147** HealthCheckConfigurationHttpGet

| Parameter | Mandatory | Type   | Description |
|-----------|-----------|--------|-------------|
| path      | No        | String | URL.        |
| port      | No        | String | Port.       |

| Parameter | Mandatory | Type   | Description                                                                                               |
|-----------|-----------|--------|-----------------------------------------------------------------------------------------------------------|
| scheme    | No        | String | Protocol.<br>Enumerated values: <ul style="list-style-type: none"> <li>• HTTP</li> <li>• HTTPS</li> </ul> |

**Table 4-148** HealthCheckConfigurationTcpSocket

| Parameter | Mandatory | Type   | Description |
|-----------|-----------|--------|-------------|
| port      | No        | String | Port.       |

**Table 4-149** HealthCheckConfigurationExec

| Parameter | Mandatory | Type             | Description      |
|-----------|-----------|------------------|------------------|
| command   | No        | Array of strings | Shell statement. |

**Table 4-150** postStart

| Parameter | Mandatory | Type                                              | Description         |
|-----------|-----------|---------------------------------------------------|---------------------|
| exec      | No        | <a href="#">LifeCycleConfigurationExec</a> object | Command to execute. |

**Table 4-151** preStop

| Parameter | Mandatory | Type                                              | Description         |
|-----------|-----------|---------------------------------------------------|---------------------|
| exec      | No        | <a href="#">LifeCycleConfigurationExec</a> object | Command to execute. |

**Table 4-152** LifeCycleConfigurationExec

| Parameter | Mandatory | Type             | Description      |
|-----------|-----------|------------------|------------------|
| command   | No        | Array of strings | Shell statement. |

**Table 4-153** ConfigurationDataMetadata

| Parameter   | Mandatory | Type               | Description                                                                                                                                                                                                                                                                                                             |
|-------------|-----------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| annotations | No        | Map<String,String> | Additional parameters.<br>Assume that you need to use the weighted round robin algorithm for load balancing and disable health check.<br>Configuration example: <ul style="list-style-type: none"> <li>"kubernetes.io/elb.health-check-flag": "off"</li> <li>"kubernetes.io/elb.lb-algorithm": "ROUND_ROBIN"</li> </ul> |

## Response Parameters

None

## Example Request

- Configure an RDS database: Set the database name to **cae**, address to **100.xx.xx.xxx**, and port number to **3306**.

POST https://{endpoint}/v1/{project\_id}/cae/applications/{application\_id}/components/{component\_id}/configurations

```
{
 "api_version": "v1",
 "kind": "ComponentConfiguration",
 "items": [{
 "type": "rds",
 "data": {
 "spec": {
 "rds_id": "a5fdee4cf88c4277a68688a014f444bdin01",
 "rds_db_name": "cae",
 "rds_address": "100.xx.xx.xxx",
 "rds_username": "cae",
 "rds_password": "xxx",
 "rds_port": "3306"
 }
 }
 }
]
```

- Configure CSE addresses: Set the configuration center addresses to **https://192.168.1.xxx:30103**, **https://192.168.1.xxx:30103**, and the service registration and discovery addresses to **https://192.168.1.xxx:30100**, **https://192.168.1.xxx:30100**.

POST https://{endpoint}/v1/{project\_id}/cae/applications/{application\_id}/components/{component\_id}/configurations

```
{
 "api_version": "v1",
 "kind": "ComponentConfiguration",
 "items": [{
 "type": "cse",
 "data": {
 "spec": {
```

```

 "config_center_addr" : "https://192.168.1.xxx:30103,https://192.168.1.xxx:30103",
 "service_center_addr" : "https://192.168.1.xxx:30100,https://192.168.1.xxx:30100",
 "cse_id" : "25779525-1aac-44be-abda-f9164f1b41b8"
 }
}
}]
}

```

- Create an environment variable component configuration: Set the time zone to **Asia/Shanghai**, and inject a secret named **password** as the environment variable.

POST https://{endpoint}/v1/{project\_id}/cae/applications/{application\_id}/components/{component\_id}/configurations

```

{
 "api_version" : "v1",
 "kind" : "ComponentConfiguration",
 "items" : [{
 "type" : "env",
 "data" : {
 "spec" : {
 "envs" : {
 "TZ" : "Asia/Shanghai"
 }
 },
 "env_references" : {
 "env_name" : "db_password",
 "value_from" : {
 "name" : "password",
 "reference_type" : "dewSecret"
 }
 }
 }
 }
]
}
}
}

```

- Configure private and public network access:
  - Set the private network access mode to **ClusterIP**, listening port number to **80**, access port number to **8080**, and protocol to **TCP**.
  - Set the public network access mode to **LoadBalancer**, listening port number to **80**, access port number to **9090**, and protocol to **TCP**. Configure a whitelist to allow access from **170.126.0.0/16**.

POST https://{endpoint}/v1/{project\_id}/cae/applications/{application\_id}/components/{component\_id}/configurations

```

{
 "api_version" : "v1",
 "kind" : "ComponentConfiguration",
 "items" : [{
 "type" : "access",
 "data" : {
 "spec" : {
 "items" : [{
 "type" : "ClusterIP",
 "ports" : [{
 "target_port" : 80,
 "port" : 8080,
 "protocol" : "TCP"
 }
]
 }
 }, {
 "type" : "LoadBalancer",
 "access_control" : {
 "type" : "white",
 "ip_list" : ["170.126.0.0/16"]
 }
 }, {
 "elb_id" : "xxx",
 "ports" : [{

```



```

 "kubernetes.io/elb.lb-algorithm" : "ROUND_ROBIN"
 }
}
}
}]]
}

```

- Create an AS policy: Set **max\_replica\_count** to 3, **min\_replica\_count** to 1, CPU usage to 30%, memory usage to 30%, and **scaledown\_stabilization\_seconds** to 300 (5 minutes), **scaledown\_rate** to 99, **scaleup\_rate** to 4, and **disable\_scaledown** to false.

POST [https://{endpoint}/v1/{project\\_id}/cae/applications/{application\\_id}/components/{component\\_id}/configurations](https://{endpoint}/v1/{project_id}/cae/applications/{application_id}/components/{component_id}/configurations)

```

{
 "api_version" : "v1",
 "kind" : "ComponentConfiguration",
 "items" : [{
 "type" : "scaling",
 "data" : {
 "spec" : {
 "scale_strategy" : "metric",
 "max_replica_count" : 3,
 "min_replica_count" : 1,
 "advanced" : {
 "scaledown_stabilization_seconds" : 300,
 "scaledown_rate" : 99,
 "scaleup_stabilization_seconds" : 0,
 "scaleup_rate" : 4,
 "disable_scaledown" : false
 },
 "triggers" : [{
 "metadata" : {
 "type" : "Utilization",
 "value" : "30"
 },
 "type" : "cpu"
 }, {
 "metadata" : {
 "type" : "Utilization",
 "value" : "30"
 },
 "type" : "memory"
 }
]
 }
 }
]
}
}]]
}

```

- Configure cloud storage (OBS bucket or OBS parallel file system): For an object bucket, set the mount path to **/tmp** and permission to **ReadWriteMany**. For a parallel file system, set the mount path to **/temp** and permission to **ReadWriteMany**.

POST [https://{endpoint}/v1/{project\\_id}/cae/applications/{application\\_id}/components/{component\\_id}/configurations](https://{endpoint}/v1/{project_id}/cae/applications/{application_id}/components/{component_id}/configurations)

```

{
 "api_version" : "v1",
 "kind" : "ComponentConfiguration",
 "items" : [{
 "type" : "volume",
 "data" : {
 "spec" : {
 "volumes" : [{
 "volume_id" : "bef119d0-c7d1-4b58-9794-8b74faf80a59",
 "resource_name" : "test-nacos",
 "resource_type" : "obs",
 "resource_sub_type" : "object_bucket",

```







```
}
}
}]
}
```

- **Configure performance management: Set instrumentation to automatic.**

POST [https://{endpoint}/v1/{project\\_id}/cae/applications/{application\\_id}/components/{component\\_id}/configurations](https://{endpoint}/v1/{project_id}/cae/applications/{application_id}/components/{component_id}/configurations)

```
{
 "api_version": "v1",
 "kind": "ComponentConfiguration",
 "items": [{
 "type": "apm2",
 "data": {
 "spec": {
 "instrumentation": "automatic"
 }
 }
 }
}]
}
```

- **Configure custom metric monitoring: Set the collection path to `/metrics` and port to `2112`, and specify custom metric `myapp_processed_ops_total`.**

POST [https://{endpoint}/v1/{project\\_id}/cae/applications/{application\\_id}/components/{component\\_id}/configurations](https://{endpoint}/v1/{project_id}/cae/applications/{application_id}/components/{component_id}/configurations)

```
{
 "api_version": "v1",
 "kind": "ComponentConfiguration",
 "items": [{
 "type": "customMetric",
 "data": {
 "spec": {
 "path": "/metrics",
 "port": 2112,
 "metrics": ["myapp_processed_ops_total"]
 }
 }
 }
}]
}
```

## Example Response

None

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.4.3 Deleting Component Configuration

### Function

This API is used to delete component configuration.

### URI

DELETE /v1/{project\_id}/cae/applications/{application\_id}/components/{component\_id}/configurations

**Table 4-154** Path parameters

| Parameter      | Mandatory | Type   | Description                                              |
|----------------|-----------|--------|----------------------------------------------------------|
| project_id     | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |
| application_id | Yes       | String | Application ID.                                          |
| component_id   | Yes       | String | Component ID.                                            |

### Request Parameters

**Table 4-155** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                 |
|--------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p> |

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

## Response Parameters

None

## Example Request

Delete component configuration.

```
DELETE https://{endpoint}/v1/{project_id}/cae/applications/{application_id}/components/{component_id}/configurations
```

## Example Response

None

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

# 4.5 Cloud Storage

## 4.5.1 Obtaining the Cloud Storage List

### Function

This API is used to obtain the cloud storage list.

### URI

GET /v1/{project\_id}/cae/volumes

**Table 4-156** Path parameter

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |

**Table 4-157** Query parameter

| Parameter     | Mandatory | Type   | Description                 |
|---------------|-----------|--------|-----------------------------|
| resource_type | Yes       | String | Resource type. Option: obs. |

## Request Parameters

**Table 4-158** Request header parameters

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token            | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p>                                                                                                                                                                                                                    |
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

## Response Parameters

**Status code: 200**

**Table 4-159** Response body parameters

| Parameter   | Type                           | Description                                                                                                              |
|-------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| api_version | String                         | API version. Fixed value: v1.<br>Enumerated value:<br><ul style="list-style-type: none"> <li>• <b>v1</b></li> </ul>      |
| kind        | String                         | API type. Fixed value: Volume.<br>Enumerated value:<br><ul style="list-style-type: none"> <li>• <b>Volume</b></li> </ul> |
| items       | Array of <b>Volume</b> objects | Cloud storage list.                                                                                                      |

**Table 4-160** Volume

| Parameter        | Type               | Description                                                                                                                                                        |
|------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| id               | String             | Cloud storage ID.                                                                                                                                                  |
| resource_info    | Map<String,String> | Storage resource details.                                                                                                                                          |
| resource_name    | String             | Cloud storage name.                                                                                                                                                |
| resource_type    | String             | Resource type. Option: obs.                                                                                                                                        |
| resource_subtype | String             | Storage resource subtype.<br>Enumerated values:<br><ul style="list-style-type: none"> <li>• <b>parallel_file_system</b></li> <li>• <b>object_bucket</b></li> </ul> |
| time             | String             | Creation time.                                                                                                                                                     |

## Example Request

Obtain the cloud storage list.

```
GET https://{endpoint}/v1/{project_id}/cae/volumes
```

## Example Response

**Status code: 200**

The request is successful.

```
{
 "api_version": "v1",
 "kind": "Volume",
```

```

"items" : [{
 "id" : "a061934d-52e3-4b36-aea7-6c51879f84c9",
 "resource_name" : "test",
 "resource_sub_type" : "parallel_file_system",
 "resource_info" : {
 "capacity" : "0.00MB",
 "obsType" : "STANDARD",
 "region" : "region"
 },
 "time" : "2023-02-08T09:31:39.858115Z"
}, {
 "id" : "bef119d0-c7d1-4b58-9794-8b74faf80a59",
 "resource_name" : "test-nacos",
 "resource_sub_type" : "object_bucket",
 "resource_info" : {
 "capacity" : "0.00MB",
 "obsType" : "STANDARD",
 "region" : "region"
 },
 "time" : "2023-02-08T09:31:49.232412Z"
}, {
 "id" : "ece8ebcd-3f1e-4175-98ea-369036acbfce",
 "resource_name" : "test-nginx",
 "resource_sub_type" : "parallel_file_system",
 "resource_info" : {
 "capacity" : "0.00MB",
 "obsType" : "STANDARD",
 "region" : "region"
 },
 "time" : "2023-02-15T03:24:08.146911Z"
}
]
}

```

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.5.2 Authorizing Cloud Storage

### Function

This API is used to authorize cloud storage.

### URI

POST /v1/{project\_id}/cae/volumes

**Table 4-161** Path parameter

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |

## Request Parameters

**Table 4-162** Request header parameters

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token            | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p>                                                                                                                                                                                                                    |
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |



| Parameter        | Mandatory | Type   | Description                                                                                                                                                                                                                                                         |
|------------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Environment-ID | Yes       | String | Environment ID. <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul> |

**Table 4-163** Request body parameters

| Parameter   | Mandatory | Type                     | Description                                                                                                         |
|-------------|-----------|--------------------------|---------------------------------------------------------------------------------------------------------------------|
| api_version | Yes       | String                   | API version. Fixed value: v1.<br>Enumerated value: <ul style="list-style-type: none"> <li><b>v1</b></li> </ul>      |
| kind        | Yes       | String                   | API type. Fixed value: Volume.<br>Enumerated value: <ul style="list-style-type: none"> <li><b>Volume</b></li> </ul> |
| spec        | Yes       | <b>VolumeSpec</b> object | Volume specifications.                                                                                              |

**Table 4-164** VolumeSpec

| Parameter         | Mandatory | Type             | Description                                                                                                                                          |
|-------------------|-----------|------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| resource_type     | Yes       | String           | Resource type. Option: obs.                                                                                                                          |
| resource_sub_type | Yes       | String           | Resource sub-type.<br>Enumerated values: <ul style="list-style-type: none"> <li><b>object_bucket</b></li> <li><b>parallel_file_system</b></li> </ul> |
| resources         | Yes       | Array of strings | Cloud storage name.                                                                                                                                  |

## Response Parameters

None

## Example Request

Authorize cloud storage: Set **resource\_type** to **obs** and **resources** to **test-bucket**.

```
POST https://{endpoint}/v1/{project_id}/cae/volumes

{
 "api_version": "v1",
 "kind": "Volume",
 "spec": {
 "resource_type": "obs",
 "resource_sub_type": "object_bucket",
 "resources": ["test-bucket"]
 }
}
```

## Example Response

None

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.5.3 Unbinding Cloud Storage

### Function

This API is used to unbind cloud storage.

### URI

DELETE /v1/{project\_id}/cae/volumes/{id}

**Table 4-165** Path parameters

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |
| id         | Yes       | String | Cloud storage ID.                                        |

## Request Parameters

**Table 4-166** Request header parameters

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token            | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p>                                                                                                                                                                                                                    |
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

## Response Parameters

Status code: 200

**Table 4-167** Response body parameters

| Parameter   | Type                                   | Description                                                                                                                 |
|-------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| api_version | String                                 | API version. Fixed value: v1.<br>Enumerated value: <ul style="list-style-type: none"> <li>• <b>v1</b></li> </ul>            |
| kind        | String                                 | API type. Fixed value: Component.<br>Enumerated value: <ul style="list-style-type: none"> <li>• <b>Component</b></li> </ul> |
| items       | Array of <b>MountComponent</b> objects | List of mounted components.                                                                                                 |

**Table 4-168** MountComponent

| Parameter      | Type   | Description       |
|----------------|--------|-------------------|
| env_id         | String | Environment ID.   |
| env_name       | String | Environment name. |
| app_id         | String | Application ID.   |
| app_name       | String | Application name. |
| component_id   | String | Component ID.     |
| component_name | String | Component name.   |

## Example Request

Unbind cloud storage.

```
DELETE https://{endpoint}/v1/{project_id}/cae/volumes/{id}
```

## Example Response

**Status code: 200**

If {} is returned, the cloud storage is successfully unbound. If components are returned, the cloud storage is mounted to them and cannot be unbound.

```
{
 "api_version": "v1",
 "kind": "Component",
 "items": [{
 "env_id": "5d3d1e90-2f5d-4ef1-958b-3fc1ed0b0898",
 "env_name": "test",
 "app_id": "c904781d-aea0-49d4-b756-9b847a10a437",
 "app_name": "test",
 "component_id": "f5de88cc-64be-4f70-ac17-db745eb76e67",
```

```
"component_name" : "test-config"
}]
}
```

## Status Code

| Status Code | Description                                                                                                                                           |
|-------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| 200         | If {} is returned, the cloud storage is successfully unbound. If components are returned, the cloud storage is mounted to them and cannot be unbound. |

## Error Code

For details, see [Error Codes](#).

# 4.6 Agency

## 4.6.1 Obtaining the Agency List

### Function

This API is used to obtain the agency list.

### URI

GET /v1/{project\_id}/cae/agencies

**Table 4-169** Path parameter

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |

## Request Parameters

**Table 4-170** Request header parameter

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                 |
|--------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p> |

## Response Parameters

Status code: 200

**Table 4-171** Response body parameters

| Parameter   | Type                                        | Description                                                                                                                    |
|-------------|---------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| api_version | String                                      | <p>API version. Fixed value: v1.</p> <p>Enumerated value:</p> <ul style="list-style-type: none"> <li><b>v1</b></li> </ul>      |
| kind        | String                                      | <p>API type. Fixed value: Agency.</p> <p>Enumerated value:</p> <ul style="list-style-type: none"> <li><b>Agency</b></li> </ul> |
| agencies    | Array of <a href="#">AgencyItem</a> objects | List of agencies.                                                                                                              |

**Table 4-172** AgencyItem

| Parameter | Type   | Description                                                                                                                             |
|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------|
| name      | String | <p>Agency name. Fixed value: cae_trust.</p> <p>Enumerated value:</p> <ul style="list-style-type: none"> <li><b>cae_trust</b></li> </ul> |

## Example Request

Obtain the agency list.

GET https://{endpoint}/v1/{project\_id}/cae/agencies

## Example Response

**Status code: 200**

The request is successful.

```
{
 "api_version" : "v1",
 "kind" : "Agency",
 "agencies" : [{
 "name" : "cae_trust",
 "roles" : ["AOM FullAccess", "VPC FullAccess"],
 "missing_roles" : ["ELB FullAccess"]
 }]
}
```

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.6.2 Creating an Agency

### Function

This API is used to create an agency.

### URI

POST /v1/{project\_id}/cae/agencies

**Table 4-173** Path parameter

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |

## Request Parameters

**Table 4-174** Request header parameter

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                   |
|--------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | Yes       | String | User token. <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> Maximum characters: 16,384 |

**Table 4-175** Request body parameters

| Parameter   | Mandatory | Type                            | Description                                                                                                         |
|-------------|-----------|---------------------------------|---------------------------------------------------------------------------------------------------------------------|
| api_version | Yes       | String                          | API version. Fixed value: v1.<br>Enumerated value: <ul style="list-style-type: none"> <li><b>v1</b></li> </ul>      |
| kind        | Yes       | String                          | API type. Fixed value: Agency.<br>Enumerated value: <ul style="list-style-type: none"> <li><b>Agency</b></li> </ul> |
| metadata    | Yes       | <a href="#">metadata</a> object | Request data.                                                                                                       |

**Table 4-176** metadata

| Parameter     | Mandatory | Type             | Description                                                                                                                  |
|---------------|-----------|------------------|------------------------------------------------------------------------------------------------------------------------------|
| name          | Yes       | String           | Agency name. Fixed value: cae_trust.<br>Enumerated value: <ul style="list-style-type: none"> <li><b>cae_trust</b></li> </ul> |
| roles         | No        | Array of strings | List of existing agency permissions.                                                                                         |
| missing_roles | No        | Array of strings | List of missing agency permissions.                                                                                          |



## Response Parameters

None

## Example Request

Create agency **cae\_trust**.

POST https://{endpoint}/v1/{project\_id}/cae/agencies

```
{
 "api_version": "v1",
 "kind": "Agency",
 "metadata": {
 "name": "cae_trust"
 }
}
```

## Example Response

None

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 204         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

# 4.7 Job

## 4.7.1 Obtaining the Details of a Job

### Function

This API is used to obtain the details of a job.

### URI

GET /v1/{project\_id}/cae/jobs/{job\_id}

**Table 4-177** Path parameters

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |

| Parameter | Mandatory | Type   | Description |
|-----------|-----------|--------|-------------|
| job_id    | Yes       | String | Job ID.     |

## Request Parameters

**Table 4-178** Request header parameters

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token            | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p>                                                                                                                                                                                                                    |
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |

| Parameter        | Mandatory | Type   | Description                                                                                                                                                                                                                                                         |
|------------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Environment-ID | Yes       | String | Environment ID. <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul> |

## Response Parameters

Status code: 200

**Table 4-179** Response body parameters

| Parameter   | Type                           | Description                                                                                                    |
|-------------|--------------------------------|----------------------------------------------------------------------------------------------------------------|
| api_version | String                         | API version. Fixed value: v1.<br>Enumerated value: <ul style="list-style-type: none"> <li><b>v1</b></li> </ul> |
| kind        | String                         | API type. Fixed value: Job.<br>Enumerated value: <ul style="list-style-type: none"> <li><b>Job</b></li> </ul>  |
| spec        | <a href="#">JobSpec</a> object | Job specifications.                                                                                            |

**Table 4-180** JobSpec

| Parameter | Type                                  | Description   |
|-----------|---------------------------------------|---------------|
| progress  | Number                                | Job progress. |
| status    | String                                | Job status.   |
| tasks     | Array of <a href="#">Task</a> objects | Task.         |

**Table 4-181** Task

| Parameter | Type    | Description |
|-----------|---------|-------------|
| index     | Integer | Task index. |

| Parameter  | Type   | Description    |
|------------|--------|----------------|
| name       | String | Task name.     |
| status     | String | Task status.   |
| detail     | String | Task details.  |
| created_at | String | Creation time. |
| updated_at | String | Update time.   |

## Example Request

Obtain the details of a job.

```
GET https://{endpoint}/v1/{project_id}/cae/jobs/{job_id}
```

## Example Response

**Status code: 200**

The request is successful.

```
{
 "api_version": "v1",
 "kind": "Job",
 "spec": {
 "progress": 0,
 "status": "running",
 "tasks": [{
 "index": 1,
 "name": "upgrade",
 "status": "init",
 "detail": "",
 "created_at": "2023-02-16T11:24:07.950175Z",
 "updated_at": "2023-02-16T11:24:07.950175Z"
 }]
 }
}
```

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.7.2 Retrying a Job

### Function

This API is used to retry a job.

### URI

POST /v1/{project\_id}/cae/jobs/{job\_id}

**Table 4-182** Path parameters

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |
| job_id     | Yes       | String | Job ID.                                                  |

### Request Parameters

**Table 4-183** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                 |
|--------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p> |

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

## Response Parameters

None

## Example Request

Retry the job based on the project ID and job ID.

```
POST https://{endpoint}/v1/{project_id}/cae/jobs/{job_id}
```

## Example Response

None

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

# 4.8 Domain Name

## 4.8.1 Obtaining the Domain Name List

### Function

This API is used to obtain the domain name list.

### URI

GET /v1/{project\_id}/cae/domains

**Table 4-184** Path parameter

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |

## Request Parameters

**Table 4-185** Request header parameters

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token            | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p>                                                                                                                                                                                                                    |
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

## Response Parameters

**Status code: 200**



**Table 4-186** Response body parameters

| Parameter   | Type                                        | Description                                                                                                |
|-------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------|
| api_version | String                                      | API version. Fixed value: v1.<br>Enumerated value:<br><ul style="list-style-type: none"> <li>v1</li> </ul> |
| items       | Array of <a href="#">DomainItem</a> objects | Domain name list.                                                                                          |
| kind        | String                                      | API type. Fixed value: Domain.                                                                             |

**Table 4-187** DomainItem

| Parameter | Type                              | Description    |
|-----------|-----------------------------------|----------------|
| metadata  | <a href="#">MetaDomain</a> object | Response data. |

**Table 4-188** MetaDomain

| Parameter  | Type   | Description     |
|------------|--------|-----------------|
| id         | String | Domain name ID. |
| name       | String | Domain name.    |
| created_at | String | Creation time.  |

## Example Request

Obtain the domain name list.

```
GET https://{endpoint}/v1/{project_id}/cae/domains
```

## Example Response

**Status code: 200**

The request is successful.

```
{
 "api_version": "v1",
 "kind": "Domain",
 "items": [{
 "metadata": {
 "id": "4475ba56-7669-4af8-8707-c9b1368c3f9c",
 "name": "example.cn",
 "created_at": "2022-12-30T08:33:35.140718Z"
 }
 }
}
```

```
}]
}
```

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.8.2 Adding a Domain Name

### Function

This API is used to add a domain name.

### URI

POST /v1/{project\_id}/cae/domains

**Table 4-189** Path parameter

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |

## Request Parameters

**Table 4-190** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                 |
|--------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p> |

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

**Table 4-191** Request body parameters

| Parameter   | Mandatory | Type                                    | Description                                                                                                                 |
|-------------|-----------|-----------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| api_version | Yes       | String                                  | <p>API version. Fixed value: v1.<br/>Enumerated value:</p> <ul style="list-style-type: none"> <li><b>v1</b></li> </ul>      |
| kind        | Yes       | String                                  | <p>API type. Fixed value: Domain.<br/>Enumerated value:</p> <ul style="list-style-type: none"> <li><b>Domain</b></li> </ul> |
| metadata    | Yes       | <a href="#">CreateMetaDomain</a> object | Request data.                                                                                                               |

**Table 4-192** CreateMetaDomain

| Parameter | Mandatory | Type   | Description  |
|-----------|-----------|--------|--------------|
| name      | Yes       | String | Domain name. |

## Response Parameters

**Status code: 200**

**Table 4-193** Response body parameters

| Parameter   | Type                                        | Description                                                                                                |
|-------------|---------------------------------------------|------------------------------------------------------------------------------------------------------------|
| api_version | String                                      | API version. Fixed value: v1.<br>Enumerated value:<br><ul style="list-style-type: none"> <li>v1</li> </ul> |
| items       | Array of <a href="#">DomainItem</a> objects | Domain name list.                                                                                          |
| kind        | String                                      | API type. Fixed value: Domain.                                                                             |

**Table 4-194** DomainItem

| Parameter | Type                              | Description    |
|-----------|-----------------------------------|----------------|
| metadata  | <a href="#">MetaDomain</a> object | Response data. |

**Table 4-195** MetaDomain

| Parameter  | Type   | Description     |
|------------|--------|-----------------|
| id         | String | Domain name ID. |
| name       | String | Domain name.    |
| created_at | String | Creation time.  |

## Example Request

Add domain name **example.cn**.

```
POST https://{endpoint}/v1/{project_id}/cae/domains
```

```
{
 "api_version": "v1",
```

```
"kind" : "Domain",
"metadata" : {
 "name" : "example.cn"
}
}
```

## Example Response

**Status code: 200**

The request is successful.

```
{
 "api_version" : "v1",
 "kind" : "Domain",
 "items" : [{
 "metadata" : {
 "id" : "4475ba56-7669-4af8-8707-c9b1368c3f9c",
 "name" : "example.cn",
 "created_at" : "2022-12-30T08:33:35.140718Z"
 }
 }]
}
```

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.8.3 Deleting a Domain Name

### Function

This API is used to delete a domain name.

### URI

DELETE /v1/{project\_id}/cae/domains/{domain\_id}

**Table 4-196** Path parameters

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |
| domain_id  | Yes       | String | Domain name ID.                                          |

## Request Parameters

**Table 4-197** Request header parameters

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token            | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p>                                                                                                                                                                                                                    |
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

## Response Parameters

None

## Example Request

Delete a domain name.

```
DELETE https://{endpoint}/v1/{project_id}/cae/domains/{domain_id}
```

## Example Response

None

## Status Code

| Status Code | Description                 |
|-------------|-----------------------------|
| 204         | The deletion is successful. |

## Error Code

For details, see [Error Codes](#).

# 4.9 Certificate

## 4.9.1 Obtaining the Certificate List

### Function

This API is used to obtain the certificate list.

### URI

```
GET /v1/{project_id}/cae/certificates
```

**Table 4-198** Path parameter

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |

## Request Parameters

**Table 4-199** Request header parameters

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token            | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p>                                                                                                                                                                                                                    |
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

## Response Parameters

**Status code: 200**



**Table 4-200** Response body parameters

| Parameter   | Type                             | Description                                                                                                                        |
|-------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| api_version | String                           | API version. Fixed value: v1.<br>Enumerated value:<br><ul style="list-style-type: none"> <li>• <b>v1</b></li> </ul>                |
| kind        | String                           | API type. Fixed value: Certificate.<br>Enumerated value:<br><ul style="list-style-type: none"> <li>• <b>Certificate</b></li> </ul> |
| items       | Array of <b>CertItem</b> objects | Certificate list.                                                                                                                  |

**Table 4-201** CertItem

| Parameter | Type                   | Description    |
|-----------|------------------------|----------------|
| metadata  | <b>MetaCert</b> object | Response data. |
| spec      | <b>SpecCert</b> object | Response data. |

**Table 4-202** MetaCert

| Parameter | Type   | Description       |
|-----------|--------|-------------------|
| id        | String | Certificate ID.   |
| name      | String | Certificate name. |

**Table 4-203** SpecCert

| Parameter  | Type   | Description                 |
|------------|--------|-----------------------------|
| crt        | String | Content of the certificate. |
| key        | String | Private key.                |
| created_at | String | Creation time.              |

## Example Request

Obtain the certificate list.

GET https://{endpoint}/v1/{project\_id}/cae/certificates

## Example Response

**Status code: 200**

The request is successful.

```
{
 "api_version": "v1",
 "kind": "Certificate",
 "items": [{
 "metadata": {
 "id": "b88810ff-8ce1-45af-8d31-730b4a887d06",
 "name": "test"
 },
 "spec": {
 "crt": "xxx",
 "key": "xxx",
 "created_at": "2022-12-30T09:38:04.705025Z"
 }
 }]
}
```

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.9.2 Creating a Certificate

### Function

This API is used to create a certificate.

### URI

POST /v1/{project\_id}/cae/certificates

**Table 4-204** Path parameter

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |

## Request Parameters

**Table 4-205** Request header parameters

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token            | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p>                                                                                                                                                                                                                    |
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

**Table 4-206** Request body parameters

| Parameter   | Mandatory | Type                  | Description                                                                                                                        |
|-------------|-----------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------|
| api_version | Yes       | String                | API version. Fixed value: v1.<br>Enumerated value:<br><ul style="list-style-type: none"> <li>• <b>v1</b></li> </ul>                |
| kind        | Yes       | String                | API type. Fixed value: Certificate.<br>Enumerated value:<br><ul style="list-style-type: none"> <li>• <b>Certificate</b></li> </ul> |
| metadata    | Yes       | CreateMetaCert object | Metadata for creating a certificate.                                                                                               |
| spec        | Yes       | CreateSpecCert object | Certificate specifications.                                                                                                        |

**Table 4-207** CreateMetaCert

| Parameter | Mandatory | Type   | Description       |
|-----------|-----------|--------|-------------------|
| name      | Yes       | String | Certificate name. |

**Table 4-208** CreateSpecCert

| Parameter | Mandatory | Type   | Description                 |
|-----------|-----------|--------|-----------------------------|
| crt       | Yes       | String | Content of the certificate. |
| key       | Yes       | String | Private key.                |

## Response Parameters

Status code: 200

**Table 4-209** Response body parameters

| Parameter   | Type   | Description                                                                                                         |
|-------------|--------|---------------------------------------------------------------------------------------------------------------------|
| api_version | String | API version. Fixed value: v1.<br>Enumerated value:<br><ul style="list-style-type: none"> <li>• <b>v1</b></li> </ul> |

| Parameter | Type                             | Description                                                                                                                      |
|-----------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| kind      | String                           | API type. Fixed value: Certificate.<br>Enumerated value:<br><ul style="list-style-type: none"> <li><b>Certificate</b></li> </ul> |
| items     | Array of <b>CertItem</b> objects | Certificate list.                                                                                                                |

**Table 4-210** CertItem

| Parameter | Type                   | Description    |
|-----------|------------------------|----------------|
| metadata  | <b>MetaCert</b> object | Response data. |
| spec      | <b>SpecCert</b> object | Response data. |

**Table 4-211** MetaCert

| Parameter | Type   | Description       |
|-----------|--------|-------------------|
| id        | String | Certificate ID.   |
| name      | String | Certificate name. |

**Table 4-212** SpecCert

| Parameter  | Type   | Description                 |
|------------|--------|-----------------------------|
| crt        | String | Content of the certificate. |
| key        | String | Private key.                |
| created_at | String | Creation time.              |

## Example Request

Create certificate **test**: Specify **crt** (server certificate content) and **key** (server private key).

POST https://{endpoint}/v1/{project\_id}/cae/certificates

```
{
 "api_version": "v1",
 "kind": "Certificate",
 "metadata": {
```

```
"name" : "test"
},
"spec" : {
 "crt" : "xxx",
 "key" : "xxx"
}
}
```

## Example Response

**Status code: 200**

The request is successful.

```
{
 "api_version" : "v1",
 "kind" : "Certificate",
 "items" : [{
 "metadata" : {
 "id" : "d66c5baf-3ab7-49da-92d6-a44aaad1997d",
 "name" : "test"
 },
 "spec" : {
 "crt" : "xxx",
 "key" : "xxx",
 "created_at" : "2023-02-28T07:19:49.610098Z"
 }
 }]
}
```

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.9.3 Modifying a Certificate

### Function

This API is used to modify a certificate.

### URI

PUT /v1/{project\_id}/cae/certificates/{certificate\_id}

**Table 4-213** Path parameters

| Parameter      | Mandatory | Type   | Description                                              |
|----------------|-----------|--------|----------------------------------------------------------|
| project_id     | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |
| certificate_id | Yes       | String | Certificate ID.                                          |

## Request Parameters

**Table 4-214** Request header parameters

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token            | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p>                                                                                                                                                                                                                    |
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |

| Parameter        | Mandatory | Type   | Description                                                                                                                                                                                                                                                         |
|------------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Environment-ID | Yes       | String | Environment ID. <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul> |

**Table 4-215** Request body parameters

| Parameter   | Mandatory | Type                                         | Description                                                                                                                   |
|-------------|-----------|----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|
| api_version | Yes       | String                                       | API version. Fixed value: v1.<br>Enumerated value: <ul style="list-style-type: none"> <li><b>v1</b></li> </ul>                |
| kind        | Yes       | String                                       | API type. Fixed value: Certificate.<br>Enumerated value: <ul style="list-style-type: none"> <li><b>Certificate</b></li> </ul> |
| spec        | Yes       | <a href="#">UpdateSpecCertificate</a> object | Certificate specifications.                                                                                                   |

**Table 4-216** UpdateSpecCert

| Parameter | Mandatory | Type   | Description                 |
|-----------|-----------|--------|-----------------------------|
| cert      | Yes       | String | Content of the certificate. |
| key       | Yes       | String | Private key.                |

## Response Parameters

None

## Example Request

Modify **cert** (server certificate content) and **key** (server private key).

```
PUT https://{endpoint}/v1/{project_id}/cae/certificates/{cert_id}
```

```
{
 "api_version": "v1",
 "kind": "Certificate",
 "spec": {
```



```
"crt" : "xxx",
"key" : "xxx"
}
}
```

## Example Response

None

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.9.4 Deleting a Certificate

### Function

This API is used to delete a certificate.

### URI

DELETE /v1/{project\_id}/cae/certificates/{certificate\_id}

**Table 4-217** Path parameters

| Parameter      | Mandatory | Type   | Description                                              |
|----------------|-----------|--------|----------------------------------------------------------|
| project_id     | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |
| certificate_id | Yes       | String | Certificate ID.                                          |

## Request Parameters

**Table 4-218** Request header parameters

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token            | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p>                                                                                                                                                                                                                    |
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

## Response Parameters

None

## Example Request

Delete a certificate.

```
DELETE https://{endpoint}/v1/{project_id}/cae/certificates/{cert_id}
```

## Example Response

None

## Status Code

| Status Code | Description                 |
|-------------|-----------------------------|
| 204         | The deletion is successful. |

## Error Code

For details, see [Error Codes](#).

# 4.10 Scheduled Start/Stop Policy

## 4.10.1 Obtaining the Scheduled Start/Stop Policy List

### Function

This API is used to obtain the scheduled start/stop policy list.

### URI

GET /v1/{project\_id}/cae/timer-rules

**Table 4-219** Path parameter

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |

## Request Parameters

**Table 4-220** Request header parameters

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token            | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p>                                                                                                                                                                                                                    |
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

## Response Parameters

Status code: 200

**Table 4-221** Response body parameters

| Parameter   | Type                                              | Description                                                                                                                    |
|-------------|---------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| api_version | String                                            | API version. Fixed value: v1.<br>Enumerated value:<br><ul style="list-style-type: none"> <li>• <b>v1</b></li> </ul>            |
| kind        | String                                            | API type. Fixed value: TimerRule.<br>Enumerated value:<br><ul style="list-style-type: none"> <li>• <b>TimerRule</b></li> </ul> |
| items       | Array of <a href="#">TimerRuleDetails</a> objects | List of start/stop policies.                                                                                                   |

**Table 4-222** TimerRuleDetails

| Parameter        | Type                                           | Description                                                                                                                                                |
|------------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| id               | String                                         | ID of a scheduled start/stop policy. This parameter is ignored during policy creation.                                                                     |
| name             | String                                         | Name of a scheduled start/stop policy.                                                                                                                     |
| type             | String                                         | Policy type. Options: stop and start.                                                                                                                      |
| status           | String                                         | Policy status. Options: on and off.                                                                                                                        |
| env_id           | String                                         | Environment ID.                                                                                                                                            |
| apps             | Array of <a href="#">AppInfo</a> objects       | Applications to which the scheduled start/stop policy applies. This parameter is mandatory only when <b>effective_range</b> is set to <b>application</b> . |
| components       | Array of <a href="#">ComponentInfo</a> objects | Components to which the scheduled start/stop policy applies. This parameter is mandatory only when <b>effective_range</b> is set to <b>component</b> .     |
| component_number | Integer                                        | Number of components to which a scheduled start/stop policy applies. This parameter is ignored during policy creation.                                     |
| cron             | String                                         | Cron expression.                                                                                                                                           |
| effective_range  | String                                         | Scope to which a policy applies. Options: component, application, and environment.                                                                         |
| effective_policy | String                                         | Trigger mode. Options: onetime and periodic.                                                                                                               |

| Parameter             | Type   | Description                                                                                                               |
|-----------------------|--------|---------------------------------------------------------------------------------------------------------------------------|
| last_execution_status | String | Status of the last execution. Options: abnormal, normal, and executing. This parameter is ignored during policy creation. |

**Table 4-223** AppInfo

| Parameter | Type   | Description       |
|-----------|--------|-------------------|
| app_id    | String | Application ID.   |
| app_name  | String | Application name. |

**Table 4-224** ComponentInfo

| Parameter      | Type   | Description     |
|----------------|--------|-----------------|
| component_id   | String | Component ID.   |
| component_name | String | Component name. |

## Example Request

Obtain the scheduled start/stop policy list.

GET https://{endpoint}/v1/{project\_id}/cae/timer-rules

## Example Response

**Status code: 200**

The request is successful.

```
{
 "api_version": "v1",
 "kind": "TimerRule",
 "items": [{
 "id": "string",
 "name": "string",
 "type": "start",
 "env_id": "string",
 "cron": "0 16 17 31 1 ? 2023",
 "component_number": 2,
 "status": "off",
 "last_execution_status": "normal",
 "effective_range": "application",
 "effective_policy": "onetime",
 "apps": [{
 "app_id": "string",
 "app_name": "string"
 }]
 }], {
 "id": "string",
```

```

"name" : "string",
"type" : "start",
"env_id" : "string",
"cron" : "0 48 17 ? * * **",
"component_number" : 2,
"status" : "on",
"last_execution_status" : "abnormal",
"effective_range" : "environment",
"effective_policy" : "periodic"
}, {
"id" : "string",
"name" : "string",
"type" : "stop",
"env_id" : "string",
"cron" : "0 16 17 31 1 ? 2023",
"component_number" : 2,
"status" : "off",
"last_execution_status" : "executing",
"effective_range" : "component",
"effective_policy" : "onetime",
"components" : [{
"component_id" : "string",
"component_name" : "string"
}]
}]
}

```

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.10.2 Creating a Scheduled Start/Stop Policy

### Function

This API is used to create a scheduled start/stop policy.

### URI

POST /v1/{project\_id}/cae/timer-rules

**Table 4-225** Path parameter

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |

## Request Parameters

**Table 4-226** Request header parameters

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token            | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p>                                                                                                                                                                                                                    |
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |



**Table 4-227** Request body parameters

| Parameter   | Mandatory | Type                                          | Description                                                                                                                    |
|-------------|-----------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| api_version | No        | String                                        | API version. Fixed value: v1.<br>Enumerated value:<br><ul style="list-style-type: none"> <li>• <b>v1</b></li> </ul>            |
| kind        | No        | String                                        | API type. Fixed value: TimerRule.<br>Enumerated value:<br><ul style="list-style-type: none"> <li>• <b>TimerRule</b></li> </ul> |
| spec        | No        | <a href="#">UpdateTimerRuleDetails</a> object | Start/stop policy specifications.                                                                                              |

**Table 4-228** UpdateTimerRuleDetails

| Parameter        | Mandatory | Type                                           | Description                                                                                                                                                |
|------------------|-----------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| name             | Yes       | String                                         | Name of a scheduled start/stop policy.                                                                                                                     |
| type             | Yes       | String                                         | Policy type. Options: stop and start.                                                                                                                      |
| status           | Yes       | String                                         | Policy status. Options: on and off.                                                                                                                        |
| apps             | No        | Array of <a href="#">AppInfo</a> objects       | Applications to which the scheduled start/stop policy applies. This parameter is mandatory only when <b>effective_range</b> is set to <b>application</b> . |
| components       | No        | Array of <a href="#">ComponentInfo</a> objects | Components to which the scheduled start/stop policy applies. This parameter is mandatory only when <b>effective_range</b> is set to <b>component</b> .     |
| cron             | Yes       | String                                         | Cron expression.                                                                                                                                           |
| effective_range  | Yes       | String                                         | Scope to which a policy applies. Options: component, application, and environment.                                                                         |
| effective_policy | Yes       | String                                         | Trigger mode. Options: onetime and periodic.                                                                                                               |

**Table 4-229** AppInfo

| Parameter | Mandatory | Type   | Description       |
|-----------|-----------|--------|-------------------|
| app_id    | No        | String | Application ID.   |
| app_name  | No        | String | Application name. |

**Table 4-230** ComponentInfo

| Parameter      | Mandatory | Type   | Description     |
|----------------|-----------|--------|-----------------|
| component_id   | No        | String | Component ID.   |
| component_name | No        | String | Component name. |

## Response Parameters

Status code: 200

**Table 4-231** Response body parameters

| Parameter   | Type                                     | Description                                                                                                                    |
|-------------|------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| api_version | String                                   | API version. Fixed value: v1.<br>Enumerated value:<br><ul style="list-style-type: none"> <li>• <b>v1</b></li> </ul>            |
| kind        | String                                   | API type. Fixed value: TimerRule.<br>Enumerated value:<br><ul style="list-style-type: none"> <li>• <b>TimerRule</b></li> </ul> |
| items       | Array of <b>TimerRuleDetails</b> objects | List of start/stop policies.                                                                                                   |

**Table 4-232** TimerRuleDetails

| Parameter | Type   | Description                                                                            |
|-----------|--------|----------------------------------------------------------------------------------------|
| id        | String | ID of a scheduled start/stop policy. This parameter is ignored during policy creation. |
| name      | String | Name of a scheduled start/stop policy.                                                 |
| type      | String | Policy type. Options: stop and start.                                                  |
| status    | String | Policy status. Options: on and off.                                                    |

| Parameter             | Type                                           | Description                                                                                                                                                |
|-----------------------|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| env_id                | String                                         | Environment ID.                                                                                                                                            |
| apps                  | Array of <a href="#">AppInfo</a> objects       | Applications to which the scheduled start/stop policy applies. This parameter is mandatory only when <b>effective_range</b> is set to <b>application</b> . |
| components            | Array of <a href="#">ComponentInfo</a> objects | Components to which the scheduled start/stop policy applies. This parameter is mandatory only when <b>effective_range</b> is set to <b>component</b> .     |
| component_number      | Integer                                        | Number of components to which a scheduled start/stop policy applies. This parameter is ignored during policy creation.                                     |
| cron                  | String                                         | Cron expression.                                                                                                                                           |
| effective_range       | String                                         | Scope to which a policy applies. Options: component, application, and environment.                                                                         |
| effective_policy      | String                                         | Trigger mode. Options: onetime and periodic.                                                                                                               |
| last_execution_status | String                                         | Status of the last execution. Options: abnormal, normal, and executing. This parameter is ignored during policy creation.                                  |

**Table 4-233** AppInfo

| Parameter | Type   | Description       |
|-----------|--------|-------------------|
| app_id    | String | Application ID.   |
| app_name  | String | Application name. |

**Table 4-234** ComponentInfo

| Parameter      | Type   | Description     |
|----------------|--------|-----------------|
| component_id   | String | Component ID.   |
| component_name | String | Component name. |

## Example Request

Create a scheduled start/stop policy: Set **name** to **test-2**, **type** to **start**, **effective\_range** to **environment**, and **effective\_policy** to **onetime**.

```
POST https://{endpoint}/v1/{project_id}/cae/timer-rules
{
 "api_version": "v1",
 "kind": "TimerRule",
 "spec": {
 "name": "test-2",
 "type": "start",
 "cron": "0 55 16 22 2 ? 2023",
 "status": "on",
 "env_id": "c41a8e9f-5447-406a-8783-85885f3870a3",
 "effective_range": "environment",
 "effective_policy": "onetime"
 }
}
```

## Example Response

**Status code: 200**

The request is successful.

```
{
 "api_version": "v1",
 "kind": "TimerRule",
 "items": [
 {
 "id": "string",
 "name": "string",
 "type": "start",
 "env_id": "string",
 "cron": "0 16 17 31 1 ? 2023",
 "component_number": 2,
 "status": "off",
 "last_execution_status": "normal",
 "effective_range": "application",
 "effective_policy": "onetime",
 "apps": [
 {
 "app_id": "string",
 "app_name": "string"
 }
]
 }
]
}
```

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.10.3 Deleting a Scheduled Start/Stop Policy

### Function

This API is used to delete a scheduled start/stop policy.

### URI

DELETE /v1/{project\_id}/cae/timer-rules/{timer\_rule\_id}

**Table 4-235** Path parameters

| Parameter     | Mandatory | Type   | Description                                              |
|---------------|-----------|--------|----------------------------------------------------------|
| project_id    | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |
| timer_rule_id | Yes       | String | ID of a scheduled start/stop policy.                     |

### Request Parameters

**Table 4-236** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                 |
|--------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p> |

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

## Response Parameters

None

## Example Request

Delete a scheduled start/stop policy.

```
DELETE https://{endpoint}/v1/{project_id}/cae/timer-rules/{rule_id}
```

## Example Response

None

## Status Code

| Status Code | Description                 |
|-------------|-----------------------------|
| 204         | The deletion is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.10.4 Modifying a Scheduled Start/Stop Policy

### Function

This API is used to modify a scheduled start/stop rule.

### URI

PUT /v1/{project\_id}/cae/timer-rules/{timer\_rule\_id}

**Table 4-237** Path parameters

| Parameter     | Mandatory | Type   | Description                                              |
|---------------|-----------|--------|----------------------------------------------------------|
| project_id    | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |
| timer_rule_id | Yes       | String | ID of a scheduled start/stop policy.                     |

## Request Parameters

**Table 4-238** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                 |
|--------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p> |

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

**Table 4-239** Request body parameters

| Parameter   | Mandatory | Type                                          | Description                                                                                                                       |
|-------------|-----------|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| api_version | Yes       | String                                        | <p>API version. Fixed value: v1.<br/>Enumerated value:</p> <ul style="list-style-type: none"> <li><b>v1</b></li> </ul>            |
| kind        | Yes       | String                                        | <p>API type. Fixed value: TimerRule.<br/>Enumerated value:</p> <ul style="list-style-type: none"> <li><b>TimerRule</b></li> </ul> |
| spec        | Yes       | <a href="#">UpdateTimerRuleDetails</a> object | Specifications.                                                                                                                   |



**Table 4-240** UpdateTimerRuleDetails

| Parameter        | Mandatory | Type                                  | Description                                                                                                                                                |
|------------------|-----------|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| name             | Yes       | String                                | Name of a scheduled start/stop policy.                                                                                                                     |
| type             | Yes       | String                                | Policy type. Options: stop and start.                                                                                                                      |
| status           | Yes       | String                                | Policy status. Options: on and off.                                                                                                                        |
| apps             | No        | Array of <b>AppInfo</b> objects       | Applications to which the scheduled start/stop policy applies. This parameter is mandatory only when <b>effective_range</b> is set to <b>application</b> . |
| components       | No        | Array of <b>ComponentInfo</b> objects | Components to which the scheduled start/stop policy applies. This parameter is mandatory only when <b>effective_range</b> is set to <b>component</b> .     |
| cron             | Yes       | String                                | Cron expression.                                                                                                                                           |
| effective_range  | Yes       | String                                | Scope to which a policy applies. Options: component, application, and environment.                                                                         |
| effective_policy | Yes       | String                                | Trigger mode. Options: onetime and periodic.                                                                                                               |

**Table 4-241** AppInfo

| Parameter | Mandatory | Type   | Description       |
|-----------|-----------|--------|-------------------|
| app_id    | No        | String | Application ID.   |
| app_name  | No        | String | Application name. |

**Table 4-242** ComponentInfo

| Parameter      | Mandatory | Type   | Description     |
|----------------|-----------|--------|-----------------|
| component_id   | No        | String | Component ID.   |
| component_name | No        | String | Component name. |

## Response Parameters

None

## Example Request

Modify a scheduled start/stop policy: Set **name** to **test-2**, **type** to **start**, **effective\_range** to **component**, and **effective\_policy** to **onetime**.

```
PUT https://{endpoint}/v1/{project_id}/cae/timer-rules/{rule_id}
{
 "api_version": "v1",
 "kind": "TimerRule",
 "spec": {
 "name": "test-2",
 "type": "start",
 "cron": "0 55 16 22 2 ? 2023",
 "status": "on",
 "env_id": "c41a8e9f-5447-406a-8783-85885f3870a3",
 "effective_range": "component",
 "effective_policy": "onetime",
 "components": [{
 "component_id": "10f7b6be-5dc2-4fb7-b62c-e8f362dfdabf",
 "component_name": "addd"
 }, {
 "component_id": "3f3041f9-5063-40c9-94ee-8473517b3956",
 "component_name": "demo-frontend-1676360408"
 }]
 }
}
```

## Example Response

None

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 204         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.10.5 Obtaining the Last Execution Status of a Scheduled Start/Stop Policy

### Function

This API is used to obtain the last execution status of a scheduled start/stop policy.

### URI

GET /v1/{project\_id}/cae/timer-rules/{timer\_rule\_id}/execution-results

**Table 4-243** Path parameters

| Parameter     | Mandatory | Type   | Description                                              |
|---------------|-----------|--------|----------------------------------------------------------|
| project_id    | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |
| timer_rule_id | Yes       | String | ID of a scheduled start/stop policy.                     |

## Request Parameters

**Table 4-244** Request header parameters

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token            | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p>                                                                                                                                                                                                                    |
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |

| Parameter        | Mandatory | Type   | Description                                                                                                                                                                                                                                                         |
|------------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Environment-ID | Yes       | String | Environment ID. <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul> |

## Response Parameters

Status code: 200

**Table 4-245** Response body parameters

| Parameter   | Type                                    | Description                                                                                                               |
|-------------|-----------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| api_version | String                                  | API version. Fixed value: v1.<br>Enumerated value: <ul style="list-style-type: none"> <li><b>v1</b></li> </ul>            |
| kind        | String                                  | API type. Fixed value: TimerRule.<br>Enumerated value: <ul style="list-style-type: none"> <li><b>TimerRule</b></li> </ul> |
| spec        | <a href="#">ExecutionDetails</a> object | Policy execution details.                                                                                                 |

**Table 4-246** ExecutionDetails

| Parameter           | Type                                                      | Description                                  |
|---------------------|-----------------------------------------------------------|----------------------------------------------|
| last_execution_time | String                                                    | Time when the start/stop policy is executed. |
| items               | Array of <a href="#">ComponentExecutionResult</a> objects | List of start/stop policy execution results. |

**Table 4-247** ComponentExecutionResult

| Parameter      | Type   | Description                                                                      |
|----------------|--------|----------------------------------------------------------------------------------|
| component_name | String | Component name.                                                                  |
| component_id   | String | Component ID.                                                                    |
| status         | String | Policy execution result. Options: failed and success.                            |
| error_message  | String | Error information. If the execution is successful, this parameter is left blank. |

## Example Request

Obtain the last execution status of a scheduled start/stop policy.

GET https://{endpoint}/v1/{project\_id}/cae/timer-rules/{rule\_id}/execution-results

## Example Response

**Status code: 200**

The request is successful.

```
{
 "api_version": "v1",
 "kind": "TimerRule",
 "spec": {
 "last_execution_time": "string",
 "items": [
 {
 "component_name": "string",
 "component_id": "string",
 "status": "normal",
 "error_message": "",
 },
 {
 "component_name": "string",
 "component_id": "string",
 "status": "abnormal",
 "error_message": "string",
 }
]
 }
}
```

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.11 EIP

### 4.11.1 Obtaining the EIP List of Cluster Nodes

#### Function

This API is used to obtain the EIP list of cluster nodes.

#### URI

GET /v1/{project\_id}/cae/eips

**Table 4-248** Path parameter

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |

#### Request Parameters

**Table 4-249** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                 |
|--------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p> |

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

## Response Parameters

Status code: 200

**Table 4-250** Response body parameters

| Parameter   | Type                        | Description                                                                                                               |
|-------------|-----------------------------|---------------------------------------------------------------------------------------------------------------------------|
| api_version | String                      | <p>API version. Fixed value: v1.</p> <p>Enumerated value:</p> <ul style="list-style-type: none"> <li><b>v1</b></li> </ul> |
| kind        | String                      | <p>API type. Fixed value: eip.</p> <p>Enumerated value:</p> <ul style="list-style-type: none"> <li><b>eip</b></li> </ul>  |
| spec        | <a href="#">spec</a> object | Inbound and outbound EIP information.                                                                                     |

**Table 4-251 spec**

| Parameter | Type                  | Description          |
|-----------|-----------------------|----------------------|
| egress    | <b>egress</b> object  | Outbound IP address. |
| ingress   | <b>ingress</b> object | Inbound IP address.  |

**Table 4-252 egress**

| Parameter      | Type             | Description                    |
|----------------|------------------|--------------------------------|
| bandwidth_size | Integer          | Outbound bandwidth.            |
| ip_list        | Array of strings | List of outbound IP addresses. |

**Table 4-253 ingress**

| Parameter      | Type             | Description                   |
|----------------|------------------|-------------------------------|
| bandwidth_size | Integer          | Inbound bandwidth.            |
| ip_list        | Array of strings | List of inbound IP addresses. |

## Example Request

Obtain the EIP list.

```
GET https://{endpoint}/v1/{project_id}/cae/eips
```

## Example Response

**Status code: 200**

The request is successful.

```
{
 "api_version": "v1",
 "kind": "eip",
 "spec": {
 "egress": {
 "bandwidth_size": 20,
 "ip_list": ["192.168.1.1", "192.168.1.2"]
 },
 "ingress": {
 "bandwidth_size": 20,
 "ip_list": ["192.168.1.3"]
 }
 }
}
```



## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.11.2 Modifying Bandwidth

### Function

This API is used to modify bandwidth.

### URI

PUT /v1/{project\_id}/cae/eips

**Table 4-254** Path parameter

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |

## Request Parameters

**Table 4-255** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                 |
|--------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p> |

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

**Table 4-256** Request body parameters

| Parameter   | Mandatory | Type                        | Description                                                                                                            |
|-------------|-----------|-----------------------------|------------------------------------------------------------------------------------------------------------------------|
| api_version | No        | String                      | <p>API version. Fixed value: v1.<br/>Enumerated value:</p> <ul style="list-style-type: none"> <li><b>v1</b></li> </ul> |
| kind        | No        | String                      | <p>API type. Fixed value: eip.<br/>Enumerated value:</p> <ul style="list-style-type: none"> <li><b>eip</b></li> </ul>  |
| spec        | No        | <a href="#">spec</a> object | Inbound and outbound EIPs whose bandwidth is to be modified.                                                           |

**Table 4-257 spec**

| Parameter | Mandatory | Type                  | Description          |
|-----------|-----------|-----------------------|----------------------|
| egress    | No        | <b>egress</b> object  | Outbound IP address. |
| ingress   | No        | <b>ingress</b> object | Inbound IP address.  |

**Table 4-258 egress**

| Parameter      | Mandatory | Type    | Description         |
|----------------|-----------|---------|---------------------|
| bandwidth_size | No        | Integer | Outbound bandwidth. |

**Table 4-259 ingress**

| Parameter      | Mandatory | Type    | Description        |
|----------------|-----------|---------|--------------------|
| bandwidth_size | No        | Integer | Inbound bandwidth. |

## Response Parameters

None

## Example Request

Modify inbound and outbound bandwidth.

```
PUT https://{endpoint}/v1/{project_id}/cae/eips
```

```
{
 "api_version": "v1",
 "kind": "eip",
 "spec": {
 "egress": {
 "bandwidth_size": 50
 },
 "ingress": {
 "bandwidth_size": 100
 }
 }
}
```

## Example Response

None

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

# 4.12 Monitoring System

## 4.12.1 Obtaining Monitoring System Configurations

### Function

This API is used to obtain monitoring system configurations.

### URI

GET /v1/{project\_id}/cae/monitor-system

**Table 4-260** Path parameter

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |

## Request Parameters

**Table 4-261** Request header parameters

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token            | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p>                                                                                                                                                                                                                    |
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

## Response Parameters

**Status code: 200**

**Table 4-262** Response body parameters

| Parameter   | Type                                                     | Description                                                                                                                            |
|-------------|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| api_version | String                                                   | API version. Fixed value: v1.<br>Enumerated value:<br><ul style="list-style-type: none"> <li>• <b>v1</b></li> </ul>                    |
| kind        | String                                                   | API type. Fixed value: MonitorSystem.<br>Enumerated value:<br><ul style="list-style-type: none"> <li>• <b>MonitorSystem</b></li> </ul> |
| spec        | <a href="#">ShowMonitorSystemResponseBodySpec</a> object | Queried monitoring system configurations.                                                                                              |

**Table 4-263** ShowMonitorSystemResponseBodySpec

| Parameter         | Type   | Description                                                                                                                                          |
|-------------------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| id                | String | Monitoring system ID.                                                                                                                                |
| type              | String | Collection mode.<br>Enumerated value:<br><ul style="list-style-type: none"> <li>• <b>apm2</b></li> </ul>                                             |
| instrumentation   | String | Agent injection mode.<br>Enumerated values:<br><ul style="list-style-type: none"> <li>• <b>manual</b></li> <li>• <b>automatic</b></li> </ul>         |
| access_key        | String | APM 2.0 access key.                                                                                                                                  |
| access_value      | String | APM 2.0 access key value.                                                                                                                            |
| access_token      | String | APM 2.0 token.                                                                                                                                       |
| master_address    | String | Agent access point.                                                                                                                                  |
| apm_application   | String | APM 2.0 application.                                                                                                                                 |
| version           | String | Enhanced Agent version.                                                                                                                              |
| image_pull_policy | String | Agent image update policy.<br>Enumerated values:<br><ul style="list-style-type: none"> <li>• <b>Always</b></li> <li>• <b>IfNotPresent</b></li> </ul> |

| Parameter  | Type   | Description    |
|------------|--------|----------------|
| created_at | String | Creation time. |
| updated_at | String | Update time.   |

## Example Request

Obtain monitoring system configurations.

```
GET https://{endpoint}/v1/{project_id}/cae/monitor-system
```

## Example Response

**Status code: 200**

The request is successful.

```
{
 "api_version": "v1",
 "kind": "MonitorSystem",
 "spec": {
 "id": "monitorsystemID",
 "type": "apm2",
 "instrumentation": "automatic",
 "access_key": "*****",
 "access_value": "*****",
 "master_address": "https://10*.*.*:443",
 "apm_application": "default",
 "version": "2.4.5.3-100sampling-x86_64",
 "image_pull_policy": "Always",
 "created_at": "2024-01-02T13:26:33.267626Z",
 "updated_at": "2024-01-03T09:15:22.926128Z"
 }
}
```

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.12.2 Creating Monitoring System Configurations

### Function

This API is used to create monitoring system configurations.

## URI

POST /v1/{project\_id}/cae/monitor-system

**Table 4-264** Path parameter

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |

## Request Parameters

**Table 4-265** Request header parameters

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token            | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p>                                                                                                                                                                                                                    |
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |



| Parameter        | Mandatory | Type   | Description                                                                                                                                                                                                                                                         |
|------------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Environment-ID | Yes       | String | Environment ID. <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul> |

**Table 4-266** Request body parameters

| Parameter   | Mandatory | Type                                                | Description                                                                                                                       |
|-------------|-----------|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| api_version | No        | String                                              | API version. Fixed value: v1.<br>Enumerated value: <ul style="list-style-type: none"> <li><b>v1</b></li> </ul>                    |
| kind        | No        | String                                              | API type. Fixed value: MonitorSystem.<br>Enumerated value: <ul style="list-style-type: none"> <li><b>MonitorSystem</b></li> </ul> |
| spec        | No        | <a href="#">MonitorSystemRequestBodySpec</a> object | Created or updated monitoring system configurations.                                                                              |

**Table 4-267** MonitorSystemRequestBodySpec

| Parameter       | Mandatory | Type   | Description                                                                                                                           |
|-----------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------|
| type            | Yes       | String | Collection mode.<br>Enumerated value: <ul style="list-style-type: none"> <li><b>apm2</b></li> </ul>                                   |
| instrumentation | Yes       | String | Agent injection mode.<br>Enumerated values: <ul style="list-style-type: none"> <li><b>manual</b></li> <li><b>automatic</b></li> </ul> |
| access_key      | No        | String | APM 2.0 access key.                                                                                                                   |
| access_value    | No        | String | APM 2.0 access key value.                                                                                                             |
| access_token    | No        | String | APM 2.0 token.                                                                                                                        |

| Parameter         | Mandatory | Type   | Description                                                                                                                                       |
|-------------------|-----------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| apm_application   | Yes       | String | APM 2.0 application.                                                                                                                              |
| version           | Yes       | String | Enhanced Agent version.                                                                                                                           |
| image_pull_policy | Yes       | String | Agent image update policy.<br>Enumerated values: <ul style="list-style-type: none"> <li>• <b>Always</b></li> <li>• <b>IfNotPresent</b></li> </ul> |

## Response Parameters

None

## Example Request

Create monitoring system configurations.

POST https://{endpoint}/v1/{project\_id}/cae/monitor-system

```
{
 "api_version" : "v1",
 "kind" : "MonitorSystem",
 "spec" : {
 "type" : "apm2",
 "access_key" : "*****",
 "access_value" : "*****",
 "master_address" : "https://10*.*.*.96:443",
 "apm_application" : "default",
 "image_pull_policy" : "Always",
 "version" : "1.32.0.14",
 "instrumentation" : "automatic"
 }
}
```

## Example Response

None

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 204         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.12.3 Updating Monitoring System Configurations

### Function

This API is used to update monitoring system configurations.

### URI

PUT /v1/{project\_id}/cae/monitor-system/{monitor\_system\_id}

**Table 4-268** Path parameters

| Parameter         | Mandatory | Type   | Description                                              |
|-------------------|-----------|--------|----------------------------------------------------------|
| project_id        | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |
| monitor_system_id | Yes       | String | Monitoring system configuration ID.                      |

### Request Parameters

**Table 4-269** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                 |
|--------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p> |

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

**Table 4-270** Request body parameters

| Parameter   | Mandatory | Type                                                | Description                                                                                                                               |
|-------------|-----------|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| api_version | No        | String                                              | <p>API version. Fixed value: v1.<br/>Enumerated value:</p> <ul style="list-style-type: none"> <li><b>v1</b></li> </ul>                    |
| kind        | No        | String                                              | <p>API type. Fixed value: MonitorSystem.<br/>Enumerated value:</p> <ul style="list-style-type: none"> <li><b>MonitorSystem</b></li> </ul> |
| spec        | No        | <a href="#">MonitorSystemRequestBodySpec</a> object | Created or updated monitoring system configurations.                                                                                      |

**Table 4-271** MonitorSystemRequestBodySpec

| Parameter         | Mandatory | Type   | Description                                                                                                                                          |
|-------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| type              | Yes       | String | Collection mode.<br>Enumerated value:<br><ul style="list-style-type: none"> <li>• <b>apm2</b></li> </ul>                                             |
| instrumentation   | Yes       | String | Agent injection mode.<br>Enumerated values:<br><ul style="list-style-type: none"> <li>• <b>manual</b></li> <li>• <b>automatic</b></li> </ul>         |
| access_key        | No        | String | APM 2.0 access key.                                                                                                                                  |
| access_value      | No        | String | APM 2.0 access key value.                                                                                                                            |
| access_token      | No        | String | APM 2.0 token.                                                                                                                                       |
| apm_application   | Yes       | String | APM 2.0 application.                                                                                                                                 |
| version           | Yes       | String | Enhanced Agent version.                                                                                                                              |
| image_pull_policy | Yes       | String | Agent image update policy.<br>Enumerated values:<br><ul style="list-style-type: none"> <li>• <b>Always</b></li> <li>• <b>IfNotPresent</b></li> </ul> |

## Response Parameters

None

## Example Request

Update monitoring system configurations.

```
PUT https://{endpoint}/v1/{project_id}/cae/monitor-system/{monitor_system_id}
```

```
{
 "api_version": "v1",
 "kind": "MonitorSystem",
 "spec": {
 "type": "apm2",
 "access_key": "*****",
 "access_value": "*****",
 "master_address": "https://10*.**.**.96:443",
 "apm_application": "default",
 "image_pull_policy": "Always",
 "version": "1.32.0.14",
 "instrumentation": "automatic"
 }
}
```

## Example Response

None

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 204         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

# 4.13 Secret

## 4.13.1 Associating a Secret Registered by the Tenant

### Function

This API is used to associate a secret registered by the tenant.

### URI

POST /v1/{project\_id}/cae/dew-secrets

**Table 4-272** Path parameter

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |

## Request Parameters

**Table 4-273** Request header parameters

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token            | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p>                                                                                                                                                                                                                    |
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

**Table 4-274** Request body parameters

| Parameter   | Mandatory | Type                                              | Description                   |
|-------------|-----------|---------------------------------------------------|-------------------------------|
| api_version | Yes       | String                                            | API version. Fixed value: v1. |
| kind        | Yes       | String                                            | Resource kind.                |
| spec        | Yes       | <a href="#">CreateOrUpdateSecretDetail</a> object |                               |

**Table 4-275** CreateOrUpdateSecretDetail

| Parameter     | Mandatory | Type    | Description                                      |
|---------------|-----------|---------|--------------------------------------------------|
| name          | Yes       | String  | Secret name.                                     |
| version_id    | Yes       | String  | Current secret version number.                   |
| modified_time | Yes       | Integer | Time when the current secret was created in DEW. |

## Response Parameters

**Status code: 200**

**Table 4-276** Response body parameters

| Parameter   | Type                                | Description                   |
|-------------|-------------------------------------|-------------------------------|
| api_version | String                              | API version. Fixed value: v1. |
| kind        | String                              | Resource kind.                |
| spec        | <a href="#">SecretDetail</a> object |                               |

**Table 4-277** SecretDetail

| Parameter           | Type    | Description                                     |
|---------------------|---------|-------------------------------------------------|
| id                  | String  | Secret ID.                                      |
| name                | String  | Secret name.                                    |
| if_update_available | Boolean | Whether the current secret has a later version. |
| secret_status       | String  | Secret status in DEW.                           |



| Parameter     | Type    | Description                                      |
|---------------|---------|--------------------------------------------------|
| status        | String  | Secret usage status in CAE.                      |
| version_id    | String  | Current secret version number.                   |
| modified_time | Integer | Time when the current secret was created in DEW. |

## Example Request

Create a secret.

Post `https://{endpoint}/v1/{project_id}/cae/dew-secrets`

## Example Response

None

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.13.2 Obtaining User Secrets

### Function

This API is used to obtain user secrets.

### URI

GET `/v1/{project_id}/cae/dew-secrets`

**Table 4-278** Path parameter

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |

## Request Parameters

**Table 4-279** Request header parameters

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token            | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p>                                                                                                                                                                                                                    |
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

## Response Parameters

**Status code: 200**

**Table 4-280** Response body parameters

| Parameter   | Type                                          | Description                                                                                                                                                |
|-------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| api_version | String                                        | API version. Fixed value: v1.                                                                                                                              |
| kind        | String                                        | Resource kind.                                                                                                                                             |
| items       | Array of <a href="#">SecretDetail</a> objects | Applications to which the scheduled start/stop policy applies. This parameter is mandatory only when <b>effective_range</b> is set to <b>application</b> . |

**Table 4-281** SecretDetail

| Parameter           | Type    | Description                                      |
|---------------------|---------|--------------------------------------------------|
| id                  | String  | Secret ID.                                       |
| name                | String  | Secret name.                                     |
| if_update_available | Boolean | Whether the current secret has a later version.  |
| secret_status       | String  | Secret status in DEW.                            |
| status              | String  | Secret usage status in CAE.                      |
| version_id          | String  | Current secret version number.                   |
| modified_time       | Integer | Time when the current secret was created in DEW. |

## Example Request

Obtain all secrets of the current user.

```
Get https://{endpoint}/v1/{project_id}/cae/secrets
```

## Example Response

None

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

### 4.13.3 Modifying the Version of a Secret Registered with DEW

#### Function

This API is used to modify the version of a secret registered with DEW.

#### URI

PUT /v1/{project\_id}/cae/dew-secrets/{secret\_id}

**Table 4-282** Path parameter

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| secret_id  | Yes       | String | Secret ID.                                               |
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |

#### Request Parameters

**Table 4-283** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                 |
|--------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p> |

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

**Table 4-284** Request body parameters

| Parameter   | Mandatory | Type                                              | Description                   |
|-------------|-----------|---------------------------------------------------|-------------------------------|
| api_version | Yes       | String                                            | API version. Fixed value: v1. |
| kind        | Yes       | String                                            | Resource kind.                |
| spec        | Yes       | <a href="#">CreateOrUpdateSecretDetail</a> object |                               |

**Table 4-285** CreateOrUpdateSecretDetail

| Parameter | Mandatory | Type   | Description  |
|-----------|-----------|--------|--------------|
| name      | Yes       | String | Secret name. |

| Parameter     | Mandatory | Type    | Description                                      |
|---------------|-----------|---------|--------------------------------------------------|
| version_id    | Yes       | String  | Current secret version number.                   |
| modified_time | Yes       | Integer | Time when the current secret was created in DEW. |

## Response Parameters

Status code: 200

**Table 4-286** Response body parameters

| Parameter   | Type                       | Description                   |
|-------------|----------------------------|-------------------------------|
| api_version | String                     | API version. Fixed value: v1. |
| kind        | String                     | Resource kind.                |
| spec        | <b>SecretDetail</b> object |                               |

**Table 4-287** SecretDetail

| Parameter           | Type    | Description                                      |
|---------------------|---------|--------------------------------------------------|
| id                  | String  | Secret ID.                                       |
| name                | String  | Secret name.                                     |
| if_update_available | Boolean | Whether the current secret has a later version.  |
| secret_status       | String  | Secret status in DEW.                            |
| status              | String  | Secret usage status in CAE.                      |
| version_id          | String  | Current secret version number.                   |
| modified_time       | Integer | Time when the current secret was created in DEW. |

## Example Request

Modify the secret whose ID is *{secret-id}*.

```
Put https://{endpoint}/v1/{project_id}/cae/dew-secrets/{secret_id}
```

## Example Response

None

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.13.4 Deleting a Secret Registered with DEW

### Function

This API is used to delete a secret registered with DEW.

### URI

DELETE /v1/{project\_id}/cae/dew-secrets/{secret\_id}

**Table 4-288** Path parameter

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| secret_id  | Yes       | String | Secret ID.                                               |
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |

## Request Parameters

**Table 4-289** Request header parameters

| Parameter    | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                 |
|--------------|-----------|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p> |

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

## Response Parameters

None

## Example Request

Delete the secret whose ID is *{secret-id}*.

Delete `https://{endpoint}/v1/{project_id}/cae/dew-secrets/{secret_id}`

## Example Response

None



## Status Code

| Status Code | Description                 |
|-------------|-----------------------------|
| 200         | The deletion is successful. |

## Error Code

For details, see [Error Codes](#).

## 4.13.5 Obtaining the Components That Are Using a Specific Secret

### Function

This API is used to obtain the components that are using a specific secret.

### URI

GET /v1/{project\_id}/cae/dew-secrets/{secret\_id}/effective-components

**Table 4-290** Path parameter

| Parameter  | Mandatory | Type   | Description                                              |
|------------|-----------|--------|----------------------------------------------------------|
| secret_id  | Yes       | String | Secret ID.                                               |
| project_id | Yes       | String | Project ID. See <a href="#">Obtaining a Project ID</a> . |

## Request Parameters

**Table 4-291** Request header parameters

| Parameter               | Mandatory | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------|-----------|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| X-Auth-Token            | Yes       | String | <p>User token.</p> <ul style="list-style-type: none"> <li>To obtain a token, see <a href="#">Obtaining a User Token Through Password Authentication</a>.</li> <li>After a response is returned, the value of <b>X-Subject-Token</b> in the response header is the token value.</li> </ul> <p>Maximum characters: 16,384</p>                                                                                                                                                                                                                    |
| X-Enterprise-Project-ID | No        | String | <p>Enterprise project ID.</p> <ul style="list-style-type: none"> <li>When an environment is created, it will be bound with an enterprise project ID.</li> <li>Enter <b>0</b> or up to 36 characters in UUID format with hyphens (-).</li> <li>If this parameter is not specified or set to <b>0</b>, resources in the default enterprise project are queried.</li> </ul> <p><b>NOTE</b><br/>For more information about enterprise projects and how to obtain enterprise project IDs, see <a href="#">Enterprise Management User Guide</a>.</p> |
| X-Environment-ID        | Yes       | String | <p>Environment ID.</p> <ul style="list-style-type: none"> <li>To obtain an environment ID, see <a href="#">Obtaining the Environment List</a> in <i>CAE API Reference</i>.</li> <li>In the response, <b>id</b> under <b>items</b> indicates the environment ID.</li> </ul>                                                                                                                                                                                                                                                                     |

## Response Parameters

**Status code: 200**

**Table 4-292** Response body parameters

| Parameter   | Type                                          | Description                                                                                                                                                |
|-------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| api_version | String                                        | API version. Fixed value: v1.                                                                                                                              |
| kind        | String                                        | Resource kind.                                                                                                                                             |
| items       | Array of <a href="#">SecretDetail</a> objects | Applications to which the scheduled start/stop policy applies. This parameter is mandatory only when <b>effective_range</b> is set to <b>application</b> . |

**Table 4-293** SecretDetail

| Parameter           | Type    | Description                                      |
|---------------------|---------|--------------------------------------------------|
| id                  | String  | Secret ID.                                       |
| name                | String  | Secret name.                                     |
| if_update_available | Boolean | Whether the current secret has a later version.  |
| secret_status       | String  | Secret status in DEW.                            |
| status              | String  | Secret usage status in CAE.                      |
| version_id          | String  | Current secret version number.                   |
| modified_time       | Integer | Time when the current secret was created in DEW. |

## Example Request

Obtain the components that are using *{secret-id}*.

Get `https://{endpoint}/v1/{project_id}/cae/dew-secrets/{secret_id}/effective-components`

## Example Response

None

## Status Code

| Status Code | Description                |
|-------------|----------------------------|
| 200         | The request is successful. |

## Error Code

For details, see [Error Codes](#).

# 5 Examples

---

## 5.1 Creating an Environment

### Scenario

To use CAE, you need to create an environment and then create applications and components in the environment.

The following describes how to call the API for creating an environment. For details about how to call APIs, see [3 Calling APIs](#).

### Prerequisites

You need to plan the region where the environment is located and determine the endpoint for calling the API based on the region. For details, see [Regions and Endpoints](#).

### Procedure

#### Step 1 Create an environment.

Call the API for creating an environment. The following shows an example request.

```
curl -k -H "Content-Type:application/json" -H "X-Auth-Token:$Token" -X POST "https://{cae_endpoint}/v1/{project_id}/cae/environments" -d '{
 "apiVersion": "v1",
 "kind": "Environment",
 "metadata": {
 "name": "env-toase",
 "annotations": {
 "type": "exclusive",
 "vpc_id": "d1f94768-0463-43c1-8eac-9faba848f5fa",
 "group_name": "demo"
 }
 }
}'
```

Information similar to the following is displayed.

```
{
 "job_id": "68531a56-febe-4218-be23-97fe00454cd1"
}
```

You can obtain the creation status based on the obtained **job\_id**.

----End

## 5.2 Creating an Application

In this example, the application is created in the environment.

### Overview

This example uses the API for creating an application.

For details about how to call APIs, see [3 Calling APIs](#).

### Procedure

#### Step 1 Create an application.

Call the API for creating an application. The following shows an example request.

```
curl -k -H "Content-Type:application/json" -H "X-Environment-ID: $env_id" -H "X-Auth-Token:$Token" -X
POST "https://{cae_endpoint}/v1/{project_id}/cae/applications" -d '{
 "apiVersion": "v1",
 "kind": "Application",
 "metadata": {
 "name": "demo-app",
 "annotations": {
 "description": "demo"
 }
 }
}'
```

Information similar to the following is displayed.

```
{
 "api_version": "v1",
 "kind": "Application",
 "metadata": {
 "id": "25f5aa9e-724c-4227-ab56-79b4066dce21",
 "name": "demo-app",
 "annotations": {
 "description": "demo"
 },
 "created_at": "2022-07-05T08:34:15.9820794Z",
 "updated_at": "2022-07-05T08:34:15.9820794Z"
 }
}
```

----End

## 5.3 Creating a Component

### Overview

This example uses the API for creating a component.

For details about how to call APIs, see [3 Calling APIs](#).

## Procedure

### Step 1 Create a component.

Call the API for creating a component. The following shows an example request.

```
curl -k -H "Content-Type:application/json" -H "X-Environment-ID: $env_id" -H "X-Auth-Token:$Token" -X
POST "https://{cae_endpoint}v1/{project_id}/cae/applications/{application_id}/components" -d '{
 "api_version": "v1",
 "kind": "Component",
 "metadata": {
 "name": "demo-jar",
 "annotations": {
 "version": "1.0.0"
 }
 },
 "spec": {
 "runtime": "Java8",
 "build": {
 "archive": {
 "artifact_namespace": "target_namespace"
 },
 "parameters": {
 "base_image": "openjdk:8u181-jdk-alpine",
 "build_env": "java-8"
 }
 },
 "source": {
 "type": "softwarePackage",
 "sub_type": "BinObs",
 "url": "https://xx/demo.jar"
 },
 "resource_limit": {
 "cpu_limit": "500m",
 "memory_limit": "1Gi"
 },
 "replica": 1
 }
}'
```

Information similar to the following is displayed.

```
{
 "api_version": "v1",
 "kind": "Component",
 "metadata": {
 "id": "908aabb3-0b50-4116-8e83-a6933ec1884c",
 "name": "demo-jar",
 "annotations": {
 "version": "1.0.0"
 }
 },
 "created_at": "2022-07-05T08:28:24.4885176Z",
 "updated_at": "2022-07-05T08:28:24.4885176Z"
},
{
 "spec": {
 "runtime": "Java8",
 "env_id": "50d18173-5df0-4db4-a2b6-8a428d42146b",
 "replica": 1,
 "source": {
 "type": "softwarePackage",
 "sub_type": "BinObs",
 "url": "https://xx/demo.jar"
 },
 "build": {
```

```
 "archive": {
 "artifact_namespace": "target_namespace"
 },
 "parameters": {
 "base_image": "xxx"
 }
 },
 "access_info": null,
 "image_url": "",
 "available_replica": 0,
 "status": "",
 "build_log_id": ""
}
```

You can obtain the creation status based on the obtained **job\_id**.

----End

## 5.4 Deploying a Component

In this example, the component is deployed in the environment.

### Overview

This example uses the API for deploying a component.

For details about how to call APIs, see [3 Calling APIs](#).

### Procedure

#### Step 1 Deploy a component.

Call the API for deploying a component. The following shows an example request.

```
curl -k -H "Content-Type:application/json" -H "X-Environment-ID: $env_id" -H "X-Auth-Token:$Token" -X
POST "https://{cae_endpoint}v1/{project_id}/cae/applications/{application_id}/components/{component_id}/
action" -d '{
 "api_version": "v1",
 "kind": "Action",
 "metadata": {
 "name": "deploy",
 "annotations": {
 "version": "1.0.0"
 }
 }
}'
```

Information similar to the following is displayed.

```
{
 "job_id": "68531a56-febe-4218-be23-97fe00454cd1"
}
```

You can obtain the deployment status based on the obtained **job\_id**.

----End



# 6 Appendixes

## 6.1 Status Codes

[Table 6-1](#) describes status codes.

**Table 6-1** Status codes

| Status Code | Message                       | Description                                                                                                                                                                       |
|-------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 100         | Continue                      | The client should continue with its request.<br>This code is issued on a provisional basis while request processing continues. It alerts the client to wait for a final response. |
| 101         | Switching Protocols           | The protocol should be switched The protocol can only be switched to a more advanced protocol.<br>For example, switch 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, 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 successfully processed the request and is not returning any content.<br>The status code is returned in response to an HTTP OPTIONS request.                            |
| 205         | Reset Content                 | The server has successfully processed the request, but does not return any content.                                                                                               |

| Status Code | Message           | Description                                                                                                                                                                                                                        |
|-------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 206         | Partial Content   | The server has fulfilled the partial GET request for the resource.                                                                                                                                                                 |
| 300         | Multiple Choices  | There are multiple options for the resource from which the client may choose. For example, this code could be used to present a list of resource characteristics and addresses from which the client such as a browser may choose. |
| 301         | Moved Permanently | The requested resource has been assigned with a new permanent URI. This new URI is contained in the response.                                                                                                                      |
| 302         | Found             | The requested resource was temporarily moved.                                                                                                                                                                                      |
| 303         | See Other         | The response to the request can be found under a different URI.<br>It should be retrieved using a <b>GET</b> or <b>POST</b> method.                                                                                                |
| 304         | Not Modified      | The requested resource has not been modified. When the server returns this status code, it does not return any resources.                                                                                                          |
| 305         | Use Proxy         | The requested resource must be accessed through a proxy.                                                                                                                                                                           |
| 306         | Unused            | This HTTP status code is no longer used.                                                                                                                                                                                           |
| 400         | Bad Request       | The request is invalid.<br>The client should not repeat the request without modifications.                                                                                                                                         |
| 401         | Unauthorized      | The authorization information provided by the client is incorrect or invalid.                                                                                                                                                      |
| 402         | Payment Required  | This status code is reserved for future use.                                                                                                                                                                                       |
| 403         | Forbidden         | The server understood the request, but is refusing to fulfill it.<br>The server understands the request, but refuses to fulfill it. The client should not repeat the request without modifications.                                |
| 404         | NotFound          | The requested resource cannot be found.<br>The client should not repeat the request without modifications.                                                                                                                         |
| 405         | MethodNotAllowed  | A request method is not supported for the requested resource.<br>The client should not repeat the request without modifications.                                                                                                   |

| Status Code | Message                         | Description                                                                                                                                                                                                                                                                                   |
|-------------|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 406         | Not Acceptable                  | The server could not fulfil the request according to the content characteristics of the request.                                                                                                                                                                                              |
| 407         | Proxy Authentication Required   | This status code is similar to 401, but the client must first authenticate itself with the proxy.                                                                                                                                                                                             |
| 408         | Request Time-out                | The client does not produce a request within the time that the server was prepared to wait.<br>The client may repeat the request without modifications later.                                                                                                                                 |
| 409         | Conflict                        | The request could not be completed due to a conflict with the current state of the resource.<br>The resource that the client attempts to create already exists, or the update request fails to be processed because of a conflict.                                                            |
| 410         | Gone                            | The requested resource does not exist.<br>The requested resource has been deleted permanently.                                                                                                                                                                                                |
| 411         | Length Required                 | The server refuses to process the request without a defined <b>Content-Length</b> .                                                                                                                                                                                                           |
| 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 entity is too large. The server may disable the connection to prevent the client from sending requests consecutively. If the server cannot process the request temporarily, the response will contain a <b>Retry-After</b> field. |
| 414         | Request-URI Too Large           | The request URI is too long for the server to process.                                                                                                                                                                                                                                        |
| 415         | Unsupported Media Type          | The server cannot process the media format 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 <b>Expect</b> request header field.                                                                                                                                                                                                          |
| 422         | UnprocessableEntity             | The request was well-formed but was unable to be followed due to semantic errors.                                                                                                                                                                                                             |

| Status Code | Message                    | Description                                                                                                                                                                                                                                                                                                       |
|-------------|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 429         | TooManyRequests            | The client has sent more requests than its rate limit is allowed within a given time, or the server has received more requests than it is able to process within a given time. In this case, the client should repeat requests after the time specified in the <b>Retry-After</b> header of the response expires. |
| 500         | Internal Server Error      | The server is able to receive the request but unable to understand the request.                                                                                                                                                                                                                                   |
| 501         | Not Implemented            | The server does not support the requested function.                                                                                                                                                                                                                                                               |
| 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.<br>The client should not repeat the request without modifications.                                                                                                                                                                                                              |
| 504         | ServerTimeout              | The request cannot be fulfilled within a given time. This status code is returned to the client only when the <b>Timeout</b> parameter is specified in the request.                                                                                                                                               |
| 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 code starting with **APIGW** is returned after you call an API, rectify the fault according to [API Gateway Error Codes](#).

| Status Code | Error Code   | Error Message                                          | Description                                            | Measure                                                                      |
|-------------|--------------|--------------------------------------------------------|--------------------------------------------------------|------------------------------------------------------------------------------|
| 401         | CAE.01500804 | Create or update agency failed.                        | Create or update agency failed.                        | Switch to the master account or grant the security administrator permission. |
| 401         | CAE.01501101 | The account is restricted due to insufficient balance. | The account is restricted due to insufficient balance. | Contact technical support engineers.                                         |

| Status Code | Error Code   | Error Message                            | Description                              | Measure                                    |
|-------------|--------------|------------------------------------------|------------------------------------------|--------------------------------------------|
| 401         | CAE.01501102 | The account is frozen.                   | The account is frozen.                   | Contact technical support engineers.       |
| 500         | CAE.01500202 | Execute component failed.                | Execute component failed.                | Contact technical support engineers.       |
| 500         | CAE.01500203 | Obtain component configurations failed.  | Obtain component configurations failed.  | Contact technical support engineers.       |
| 500         | CAE.01500204 | Obtain component events failed.          | Obtain component events failed.          | Contact technical support engineers.       |
| 500         | CAE.01500401 | Create environment failed.               | Create environment failed.               | Contact technical support engineers.       |
| 500         | CAE.01500402 | Delete environment failed.               | Delete environment failed.               | Contact technical support engineers.       |
| 500         | CAE.01500404 | Environment not found.                   | Environment not found.                   | Check whether the environment exists.      |
| 500         | CAE.01500413 | Delete other environments and try again. | Delete other environments and try again. | Delete the sub-environments and try again. |
| 500         | CAE.01500501 | Retry task failed.                       | Retry task failed.                       | Contact technical support engineers.       |
| 500         | CAE.01500601 | Create volume failed.                    | Create volume failed.                    | Contact technical support engineers.       |
| 500         | CAE.01500602 | Delete volume failed.                    | Delete volume failed.                    | Contact technical support engineers.       |
| 500         | CAE.01500701 | Apply quota failed.                      | Apply quota failed.                      | Contact technical support engineers.       |
| 500         | CAE.01500702 | Release quota failed.                    | Release quota failed.                    | Contact technical support engineers.       |

## 6.3 Obtaining a Project ID

### Obtaining a Project ID by Calling an API

You can obtain the project ID by calling the API for [querying project information](#).

The API for obtaining a project ID is **GET <https://{Endpoint}/v3/projects>**, where *{Endpoint}* indicates the IAM endpoint. You can obtain the IAM endpoint from [Regions and Endpoints](#). For details about API authentication, see [3.2 Authentication](#).

The following is an example response. *id* indicates a project ID.

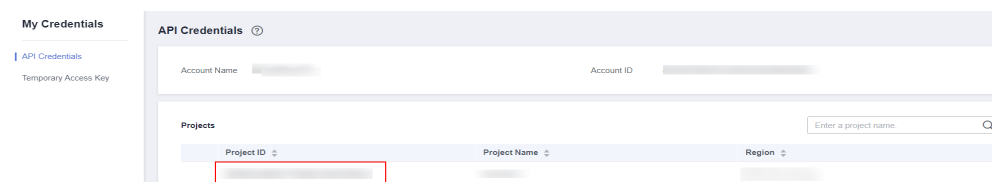
```
{
 "projects": [
 {
 "domain_id": "65382450e8f64ac0870cd180d14e684b",
 "is_domain": false,
 "parent_id": "65382450e8f64ac0870cd180d14e684b",
 "name": "cn-north-4",
 "description": "",
 "links": {
 "next": null,
 "previous": null,
 "self": "https://www.example.com/v3/projects/a4a5d4098fb4474fa22cd05f897d6b99"
 },
 "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:

- Step 1** Log in to the console.
- Step 2** Move the cursor to the username in the upper right corner and select **My Credentials** from the drop-down list.
- Step 3** On the **Projects** area, obtain the required project ID in the project list.

**Figure 6-1** Viewing a project ID



----End

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# 7 Change History

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| Released Date | Description                               |
|---------------|-------------------------------------------|
| 2025-02-14    | This issue is the first official release. |