Auto Scaling

API Reference

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Before You Start

1.1 Overview

Welcome to *Auto Scaling API Reference*. Auto Scaling (AS) is a service that automatically adjusts resources (Elastic Cloud Server and bandwidth resources) based on your service requirements and configured AS policies. You can specify AS policies based on service requirements. These policies free you from having to repeatedly adjust resources to keep up with service changes and demand spikes, helping you reduce resource and labor costs. This document describes how to use application programming interfaces (APIs) to perform operations on AS groups, such as creating, deleting, or modifying AS groups. For details about all supported operations, see **API Overview**.

If you plan to access AS through an API, ensure that you are familiar with AS concepts.. For details, see *Auto Scaling User Guide*.

1.2 API Calling

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

In addition, AS provides software development kits (SDKs) of multiple programming languages for you to use.

1.3 Endpoints

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

1.4 Constraints

 The numbers of AS groups and AS configurations that you can create are determined by your quota. For details, see What Is the AS Quota? For more constraints, see API description.

1.5 Concepts

Account

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

User

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

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

Region

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

For details, see Region and AZ.

AZ

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

Project

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

Project A_1 Project A_2 Project B_1 Project B_2

Region A Region B

Figure 1-1 Project isolation model

• Enterprise project

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

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

2 API Overview

By using the APIs provided by AS, you can use all the functions of AS, for example, creating an AS group. **Table 2-1** lists the APIs supported by AS.

Table 2-1 AS APIs

Function	Description		
AS group	Create, query, modify, and delete AS groups.		
AS configuratio n	Create, query, and delete AS configurations.		
Instance	Query instances and remove instances from AS groups.		
AS policy	Create, query, modify, and delete AS policies.		
AS policy execution log	Query execution records of an AS policy.		
Scaling action log	Query scaling action logs.		
Quota	Query the total quota and used quota of AS groups, AS configurations, AS policies, and instances for a specified tenant.		
Notification	Configure AS group notifications, query AS group notifications, and delete AS group notifications.		
Lifecycle hook	Create, query, modify, and delete lifecycle hooks.		
Tag manageme nt	Query tenant or resource tags, create or delete tags, and query resource instances.		
API manageme nt	Query API versions.		

3 Calling APIs

3.1 Making an API Request

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

Request URI

A request URI is in the following format:

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

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

Table 3-1 URI parameter description

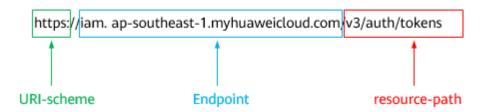
Parameter	Description
URI-scheme	Protocol used to transmit requests. All APIs use HTTPS.
Endpoint	Domain name or IP address of the server bearing the REST service. The endpoint varies between services in different regions. It can be obtained from Regions and Endpoints . For example, the endpoint of IAM in region CN-Hong Kong is iam.ap-southeast-1.myhuaweicloud.com .
resource-path	Access path of an API for performing a specified operation. Obtain the path from the URI of an API. For example, the resource-path of the API used to obtain a user token is /v3/auth/tokens.

Parameter	Description
query-string	Query parameter, which is optional. Ensure that a question mark (?) is included before each query parameter that is in the format of <i>Parameter name=Parameter value</i> . For example, ? limit=10 indicates that a maximum of 10 data records will be displayed.

For example, to obtain an IAM token in the **CN-Hong Kong** region, obtain the endpoint of IAM (iam.ap-southeast-1.myhuaweicloud.com) for this region and the resource-path (/v3/auth/tokens) in the URI of the API used to **obtain a user token**. Then, construct the URI as follows:

https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/tokens

Figure 3-1 Example URI



◯ NOTE

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

Request Methods

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

Table 3-2 HTTP methods

Method	Description	
GET	Requests the server to return specified resources.	
PUT	Requests the server to update specified resources.	
POST	Requests the server to add resources or perform special operations.	
DELETE	Requests the server to delete specified resources, for example, an object.	
HEAD	Same as GET except that the server must return only the response header.	

Method	Description
PATCH	Requests the server to update partial content of a specified resource.
	If the resource does not exist, a new resource will be created.

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

POST https://iam.ap-southeast-1.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.

Table 3-3 Common request header fields

Parameter	Description	Mandatory	Example Value
Host	Specifies the server domain name and port number of the resources being requested. The value can be obtained from the URL of the service API. The value is in the format of Hostname:Port number. If the port number is not specified, the default port is used. The default port number for https is 443.	No This field is mandatory for AK/SK authentication.	code.test.com or code.test.com:44 3
Content-Type	Specifies the type (or format) of the message body. The default value application/json is recommended. Other values of this field will be provided for specific APIs if any.	Yes	application/json
Content- Length	Specifies the length of the request body. The unit is byte.	No	3495

Parameter	Description	Mandatory	Example Value
X-Project-Id	Specifies the project ID. Obtain the project ID by following the instructions in Obtaining a Project ID.	No This field is mandatory for requests that use AK/SK authentication in the Dedicated Cloud (DeC) scenario or multi-project scenario.	e9993fc787d94b 6c886cbaa340f9c 0f4
X-Auth-Token	Specifies the user token. It is a response to the API for obtaining a user token (This is the only API that does not require authentication). After the request is processed, the value of X-Subject-Token in the response header is the token value.	No This field is mandatory for token authentication.	The following is part of an example token: MIIPAgYJKoZIhvc NAQcCoggg1B BIINPXsidG9rZ

□ NOTE

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

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

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

POST https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/tokens Content-Type: application/json

(Optional) Request Body

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

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

In the case of the API used to **obtain a user token**, the request parameters and parameter description can be obtained from the API request. The following provides an example request with a body included. Replace *username*,

□ 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-1.myhuaweicloud.com/v3/auth/tokens
Content-Type: application/json
  "auth": {
     "identity": {
       "methods": [
          'password"
        'password": {
          "user": {
            "name": "username",
            "password": " *******
            .
"domain": {
               "name": "domainname"
       }
    },
     "scope": {
       "project": {
         }
```

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

3.2 Authentication

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

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

Token Authentication

Ⅲ NOTE

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

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

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

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

```
POST https://iam.ap-southeast-1.myhuaweicloud.com/v3/auth/projects
Content-Type: application/json
X-Auth-Token: ABCDEFJ....
```

AK/SK Authentication

MOTE

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

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

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

In AK/SK authentication, you can use an AK/SK to sign requests 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**.

□ NOTE

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

3.3 Response

Status Codes

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

Response Header

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

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

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

```
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

- MITYXQYIKoZihvcNAQcCoIIYTjCCGEoCAQExDTALBglghkgBZQMEAgEwgharBgkqhkiG9w08BwGgghacBiIWmHsidG9rZW4iOnsiZXhwaXilc19hdCl6tjjlwMTktMDItMTNUMD

fjSKl367g KngVNRBW2eZ5eb78SZOkajiAcglkqOLwi4JlGzrpd18LGXK5bddfq4lqHCVb8P4NaY0NYejcAgzIVveTNtLTGSO0zxKZmlQHQl8ZHBqHdajiZO9fuEb15dMhdavj+33wEl

x-ress-protection → 1; mode=block;
```

(Optional) Response Body

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

The following is part of the response body for the API used to **obtain a user token**. For the sake of limited space, only part of the content is displayed.

```
{
"token": {
```

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 information about the error.

3.4 Obtaining a Project ID

Scenarios

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

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

Obtain the Project ID by Calling an API

You can obtain a project ID by calling the API used to **query projects based on specified criteria**.

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

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

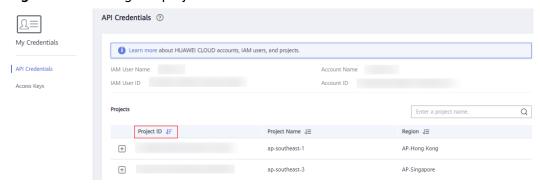
```
"previous": null,
"self": "https://www.example.com/v3/projects"
}
}
```

Obtain a Project ID from the Console

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

- 1. Log in to the management console.
- 2. Click the username and select **My Credentials** from the drop-down list. On the **API Credentials** page, view the project ID in the project list.

Figure 3-3 Viewing the project ID



4 Getting Started

4.1 Creating an AS Group

This section describes how to create an AS group by calling a series of AS APIs.

Ⅲ NOTE

The validity period of a token obtained from IAM is 24 hours. If you want to use a token for authentication, cache it to avoid frequently calling the IAM API.

Involved APIs

To use token authentication, you need to obtain a token and add **X-Auth-Token** to the request header of API calls.

- API for obtaining tokens from IAM
- APIs used to create an AS group

Procedure

- 1. Obtain the token by following instructions in **Authentication**.
- 2. Obtain the project ID (project_id). For details, see Obtaining a Project ID.
- Add the Content-Type key to the request header. The value of Content-Type is application/json.
- 4. Add the **X-Auth-Token** key to the request header. The value is the token obtained in step 1.
- 5. Send **POST https://***AS endpoint*/v1/{*project_id*}/scaling_group. *project_id* is the project ID obtained in step 2.
- 6. Specify the following parameters in the request body:

```
["scaling_group_name": "GroupNameTest",//AS group name (This is a mandatory string.)
"scaling_configuration_id": "47683a91-93ee-462a-a7d7-484c006f4440",//AS configuration ID (This is an optional string, but an AS group to be enabled must have an AS configuration.)
"desire_instance_number": 0,//Expected instances (This is an optional integer.)
"min_instance_number": 0,//Minimum instances (This is an optional integer.)
"max_instance_number": 0,//Maximum instances (This is an optional integer.)
"cool_down_time": 200,//Cooldown period (This is an optional integer.)
"health_periodic_audit_method": "NOVA_AUDIT",//Instance health check method (This is an
```

```
optional string.)

"health_periodic_audit_time": 5,//Instance health check period (This is an optional integer.)

"instance_terminate_policy": "OLD_CONFIG_OLD_INSTANCE",//Instance removal policy (This is an optional string.)

"vpc_id": "a8327883-6b07-4497-9c61-68d03ee193a",//VPC information (This is a mandatory string.)

"networks": [

"id": "3cd35bca-5a10-416f-8994-f79169559870"

}

]//Subnet information (This is a mandatory list data structure.)
```

If the request is responded, **scaling_group_id** is returned, indicating that the AS group is successfully created.

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

7. You can query, modify, and delete an AS group based on the obtained **scaling_group_id**.

5 APIs

5.1 AS Groups

5.1.1 Creating an AS Group

Function

An AS group is a collection of instances that are used in the same scenario. It is the basis for enabling or disabling AS policies and performing scaling actions. An AS group specifies parameters, such as the maximum number of instances, expected number of instances, minimum number of instances, VPC, subnet, and load balance settings.

- Each account can create a maximum of 10 AS groups by default.
- If a load balancer is associated with an AS group, AS automatically associates the load balancer with or dissociates the load balancer from instances when the instances are added to or removed from the AS group.
- If ELB health check is enabled for an AS group, the instances in the AS group must use all the listening ports of each load balancer for health check. You can configure these ports in the security group of the instances. For details, see Adding a Security Group Rule.
 - If you add multiple load balancers to an AS group, an instance is considered healthy only when all load balancers declare that it is healthy.
 If any load balancer detects that the instance is unhealthy, the instance will be removed from the AS group.
 - If you add a load balancer that has multiple listening ports to an AS group, an instance is considered healthy only when all the ports detect the instance is healthy. If the instance is detected unhealthy by any of the ports, the instance will be removed from the AS group.
- If you add a load balancer that has multiple listening ports to an AS group, you are advised to create AS policies based on ECS metrics, rather than network metrics or application metrics. If a network metric or an application metric is used, scale-out and scale-in actions may happen at the same time.

• If you add a load balancer that has multiple listening ports to an AS group, AS can complete a scale-out or scale-in action only when the load balancer listens or no longer listens on all these ports on the instances to be added or removed. Otherwise, AS will release the instances to be added and create new ones in the scale-out action or will not release the instances to be removed in the scale-in action.

URI

POST /autoscaling-api/v1/{project_id}/scaling_group

Table 5-1 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.

Request

Table 5-2 Request parameters

Parameter	Mandatory	Туре	Description
scaling_group _name	Yes	String	Specifies the AS group name. The name contains only letters, digits, underscores (_), and hyphens (-), and cannot exceed 64 characters.
scaling_config uration_id	Yes	String	Specifies the AS configuration ID, which can be obtained using the API for querying AS configurations. For details, see Querying AS configurations.
desire_instanc e_number	No	Integer	Specifies the expected number of instances. The default value is the minimum number of instances. The value ranges from the minimum number of instances to the maximum number of instances.
min_instance_ number	No	Integer	Specifies the minimum number of instances. The default value is 0 .
max_instance _number	No	Integer	Specifies the maximum number of instances. The default value is 1. The value is an integer ranging from 0 to 300.

Parameter	Mandatory	Туре	Description
cool_down_ti me	No	Integer	Specifies the cooldown period (in seconds). The value ranges from 0 to 86400 and defaults to 300.
			After a scaling action is complete, the cooldown period starts. During the cooldown period, AS denies all scaling requests triggered by alarm-based policies. Scaling requests triggered manually or by scheduled or periodic policies are not affected. NOTE
			When an AS group scales out, scale-in requests triggered manually or by scheduled and periodic policies will be executed immediately after the scale-out is complete, without being affected by the cooldown period.
			When an AS group scales in, scale-out requests triggered manually or by scheduled and periodic policies will be executed immediately after the scale-in is complete, without being affected by the cooldown period.
lb_listener_id	No	String	Specifies the ID of a listener added to a load balancer. You can add up to six listeners. Separate listener IDs with commas (,). For how to obtain a listener ID, see Querying Load Balancers. This parameter is alternative to lbaas_listeners.
lbaas_listener s	No	Array of lbaas_list eners objects	Specifies information about a load balancer. You can add up to six load balancers. This parameter is in list data structure. For details, see Table 5-3. For how to obtain information about a load balancer, see Querying Backend Server Groups. This parameter is alternative to lb_listener_id.

Parameter	Mandatory	Туре	Description
available_zon es	No	Array of strings	Specifies the AZ information. The instances added in a scaling action will be created in a specified AZ. If you do not specify an AZ, the system automatically specifies one. For details, see Regions and Endpoints.
networks	Yes	Array of networks objects	Specifies network information. You can select up to five subnets. The first subnet you select is used by the primary NICs of ECSs by default. For how to obtain information about subnets, see Querying Subnets. For the information about the data structure, see Table 5-4.
security_grou ps	No	Array of security_groups objects	Specifies the security group. Only one security group can be selected. For how to obtain security group information, see Querying Security Groups . For the information about the data structure, see Table 5-7 .
			If a security group is specified both in the AS configuration and the AS group, scaled-out instances will be added to the security group specified in the AS configuration. If a security group is not specified in either of them, scaled-out instances will be added to the default security group. For your convenience, specify a security group in the AS configuration.
vpc_id	Yes	String	Specifies the VPC ID, which can be obtained using the API for querying VPCs. For details, see "Querying VPCs" in <i>Virtual Private Network API Reference</i> .

Parameter	Mandatory	Туре	Description
health_period ic_audit_meth od	No	String	Specifies the health check method for instances in the AS group. The health check methods include ELB_AUDIT and NOVA_AUDIT. When load balancing is configured for an AS group, the default value is ELB_AUDIT. Otherwise, the default value is NOVA_AUDIT. • ELB_AUDIT: indicates the ELB health check, which takes effect in an AS group with a
			listener. • NOVA_AUDIT: indicates the ECS instance health check, which is the health check method that comes with AS.
health_period ic_audit_time	No	Integer	Specifies the health check interval. The value can be 1, 5, 15, 60, or 180 in the unit of minutes. If this parameter is not specified, the default value is 5. If the value is set to 0, health
			check is performed every 10 seconds.
health_period ic_audit_grace _period	No	Integer	Specifies the grace period for instance health check. The unit is second and the value ranges from 0 to 86400. The default value is 600.
			The health check grace period starts after an instance is added to an AS group and is enabled. The AS group will start checking the instance health only after the grace period ends.
			This parameter is valid only when the instance health check method of the AS group is ELB_AUDIT .

Parameter	Mandatory	Туре	Description
instance_term inate_policy	No	String	 Specifies the instance removal policy. OLD_CONFIG_OLD_INSTANCE (default): The earlier-created instances based on the earlier-created AS configurations are removed first. OLD_CONFIG_NEW_INSTANC E: The later-created instances based on the earlier-created AS configurations are removed first. OLD_INSTANCE: The earlier-created instances are removed first. NEW_INSTANCE: The later-created instances are removed first.
notifications	No	Array of strings	Specifies the notification mode. EMAIL refers to notification by email. This parameter has been discarded. You can configure notifications for the AS group by referring to Notifications.
delete_publici p	No	Boolean	Specifies whether to release the EIPs bound to ECSs when the ECSs are removed from the AS group. The value can be true or false . The default value is false . • true : The EIPs bound to ECSs will be released when the ECSs are removed. If the EIPs are billed on a yearly/monthly basis, they will not be released when the ECSs are removed. • false : The EIPs bound to ECSs will be unbound but will not be released when the ECSs are removed.

Parameter	Mandatory	Туре	Description
delete_volum e	No	Boolean	Specifies whether to delete the data disks attached to ECSs when the ECSs are removed. The value can be true or false . The default value is false .
			true: The data disks attached to ECSs will be released when the ECSs are removed. If the data disks are billed a yearly/ monthly basis, they will not be deleted when ECSs are removed.
			false: The data disks attached to ECSs will be detached but will not be released when the ECSs are removed.
enterprise_pr oject_id	No	String	Specifies the enterprise project ID, which is used to specify the enterprise project to which the AS group belongs.
			 If the value is 0 or left blank, the AS group belongs to the default enterprise project.
			 If the value is a UUID, the AS group belongs to the enterprise project corresponding to the UUID For how to obtain an enterprise project ID, see Querying Enterprise Projects.
			If an enterprise project is configured for an AS group, ECSs created in this AS group also belong to this enterprise project. Otherwise, the default enterprise project will be used.
			NOTE For details about enterprise project features, see <i>Enterprise Project Management User Guide</i> .

Parameter	Mandatory	Туре	Description
multi_az_prio rity_policy	No	String	Specifies the priority policy used to select target AZs when adjusting the number of instances in an AS group. • EQUILIBRIUM_DISTRIBUTE (default): When AS scales out the AS group, it preferentially distributes instances evenly across AZs in the available_zones list. If it fails in the target AZ, it selects another AZ based on the PICK_FIRST policy. • PICK FIRST: When AS scales
			out the AS group, the target AZ is determined in the order in the available_zones list.
description	No	String	Specifies the description of the AS group. The value can contain 1 to 256 characters.
iam_agency_n ame	No	String	Specifies the agency name, in 1 to 64 characters.
			• iam_agency_name is not transferred if it is set to null.
			• iam_agency_name is transferred if it is left blank or has a value.

Table 5-3 lbaas_listeners field description

Parameter	Mandatory	Туре	Description
pool_id	Yes	String	Specifies the backend server group ID.
protocol_port	Yes	Integer	Specifies the port configured for the backend server group, which is the port on which a backend server listens for traffic. The port ranges from 1 to 65535.
weight	Yes	Integer	Specifies the weight, which determines the percentage of requests a backend server processes. The value of this parameter ranges from 0 to 100 .

Parameter	Mandatory	Туре	Description
protocol_versi on	No	String	Specifies the version of instance IP addresses to be associated with the load balancer. The value can be ipv4 or ipv6 . NOTE
			 Instances in an AS group do not support IPv4/IPv6 dual-stack on multiple NICs. IPv4/IPv6 dual- stack is only available for the first NIC that supports both IPv4 and IPv6. The NIC may be a primary NIC or an extension NIC.
			 Only ECSs with flavors that support IPv6 can use IPv4/IPv6 dual-stack networks. If you want to select IPv6 for this parameter, make sure that you have selected such ECS flavors in a supported region.
			If you add two or more load balancers whose pool_id, protocol_port, and protocol_version settings are totally same, deduplication will be performed.

Table 5-4 networks field description

Parameter	Mandatory	Туре	Description
id	Yes	String	Specifies the subnet ID.
ipv6_enable	No	Boolean	Specifies whether to support IPv6 addresses.
			true : indicates that the NIC supports IPv6 addresses.
			false : indicates that the NIC does not support IPv6 addresses. The default value is false .
ipv6_bandwid th	No	ipv6_ban dwidth object	Specifies the shared bandwidth of an IPv6 address. This parameter is left blank by default, indicating that no shared IPv6 bandwidth is bound.
allowed_addr ess_pairs	No	Array of allowed_address_pairs objects	Specifies whether to allow the system to check the source and destination addresses.

Table 5-5 ipv6_bandwidth field description

Parameter	Mandatory	Туре	Description
id	Yes	String	Specifies the ID of the shared bandwidth of an IPv6 address.

Table 5-6 allowed_address_pairs field description

Parameter	Mandat ory	Туре	Description
ip_address	No	String	Specifies whether to allow the system to check the source and destination addresses.
			This function is enabled by default. This parameter cannot be left empty.
			• To disable this function, set the value to 1.1.1.1/0 .
			To enable this function, set a value other than 1.1.1.1/0.

Table 5-7 security_groups field description

Parameter	Mandatory	Туре	Description
id	Yes	String	Specifies the security group ID.

Example Request

This example creates an AS group with the name **GroupNameTest**, the AS configuration ID **47683a91-93ee-462a-a7d7-484c006f4440**, the VPC ID **a8327883-6b07-4497-9c61-68d03ee193a**, the NIC ID **3cd35bca-5a10-416f-8994-f79169559870**, the maximum number of instances of **10**, the expected number of instances of **0**, the minimum number of instances of **0**, and the health check method of **ECS** health check, and the multi-AZ scaling policy of **PICK_FIRST**. The enterprise project is specified by you.

```
{
    "scaling_group_name": "GroupNameTest",
    "scaling_configuration_id": "47683a91-93ee-462a-a7d7-484c006f4440",
    "desire_instance_number": 0,
    "min_instance_number": 10,
    "max_instance_number": 10,
    "health_periodic_audit_method": "NOVA_AUDIT",
    "vpc_id": "a8327883-6b07-4497-9c61-68d03ee193a",
    "available_zones": ["XXXa","XXXb"],
    "networks": [
    {
        "id": "3cd35bca-5a10-416f-8994-f79169559870"
```

```
}
],
"enterprise_project_id": "c92b1a5d-6f20-43f2-b1b7-7ce35e58e413",
"multi_az_priority_policy": "PICK_FIRST",
"iam_agency_name":"test"
}
```

Response

Table 5-8 Response parameters

Parameter	Туре	Description
scaling_group_id	String	Specifies the AS group ID.

Example Response

```
{
 "scaling_group_id": "a8327883-6b07-4497-9c61-68d03ee193a1"
}
```

Returned Values

- Normal200
- Abnormal

Returned Value	Description		
400 Bad Request	The server failed to process the request.		
401 Unauthorized	You must enter the username and password to access the requested page.		
403 Forbidden	You are forbidden to access the requested page.		
404 Not Found	The server could not find the requested page.		
405 Method Not Allowed	You are not allowed to use the method specified in the request.		
406 Not Acceptable	The response generated by the server could not be accepted by the client.		
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.		
408 Request Timeout	The request timed out.		
409 Conflict	The request could not be processed due to a conflict.		
500 Internal Server Error	Failed to complete the request because of an internal service error.		

Returned Value	Description
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

Error Codes

See Error Codes.

5.1.2 Querying AS Groups

Function

This API is used to list AS groups based on search criteria. The results are displayed by page.

- Search criteria can be the AS group name, AS configuration ID, AS group status, enterprise project ID, start line number, and number of records.
- If no search criteria are specified, a maximum of 20 AS groups can be listed by default.

URI

GET /autoscaling-api/v1/{project_id}/scaling_group

■ NOTE

You can type the question mark (?) and ampersand (&) at the end of the URI to define multiple search criteria. AS groups can be searched by all optional parameters in the following table. For details, see the example request.

Table 5-9 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_gro up_name	No	String	Specifies the AS group name. Fuzzy search is supported.
scaling_conf iguration_id	No	String	Specifies the AS configuration ID, which can be obtained using the API for listing AS configurations. For details, see Querying AS configurations.

Parameter	Mandatory	Туре	Description
scaling_gro up_status	No	String	Specifies the AS group status. The options are as follows:
			INSERVICE: indicates that the AS group is functional.
			PAUSED: indicates that the AS group is paused.
			ERROR: indicates that the AS group malfunctions.
			DELETING: indicates that the AS group is being deleted.
			FREEZED: indicates that the AS group has been frozen.
start_numb er	No	Integer	Specifies the start line number. The default value is 0 . The minimum value is 0 , and there is no limit on the maximum value.
limit	No	Integer	Specifies the number of query records. The default value is 20 . The value ranges from 0 to 100.
enterprise_ project_id	No	String	Specifies the enterprise project ID. If all_granted_eps is specified, AS groups in all enterprise projects you have permissions to are listed. For how to obtain an enterprise project ID, see Listing Enterprise Projects.
			NOTE A Huawei Cloud account and its IAM users assigned with global permissions can view all the AS groups in the account.
			If an IAM user is assigned with permissions to more 100 enterprise projects, the user can only view the AS groups in the first 100 enterprise projects.

Request

None

Example Request

This example queries AS groups with name **as-group-test** and AS configuration ID **1d281494-6085-4579-b817-c1f813be835f**.

 $GET\ https://\{Endpoint\}/autoscaling-api/v1/\{project_id\}/scaling_group?scaling_group_name=as-group-test\&scaling_configuration_id=1d281494-6085-4579-b817-c1f813be835f$

Response

Table 5-10 Response parameters

Parameter	Туре	Description
total_number	Integer	Specifies the total number of query records.
start_number	Integer	Specifies the start number of query records.
limit	Integer	Specifies the number of query records.
scaling_groups	Array of scaling_gr oups objects	Specifies the AS group list.

Table 5-11 scaling_groups field description

Parameter	Туре	Description
scaling_group_name	String	Specifies the name of the AS group.
scaling_group_id	String	Specifies the AS group ID.
scaling_group_status	String	Specifies the AS group status.
scaling_configuration_id	String	Specifies the AS configuration ID.
scaling_configuration_na me	String	Specifies the AS configuration name.
current_instance_numbe r	Integer	Specifies the number of current instances in the AS group.
desire_instance_number	Integer	Specifies the expected number of instances in the AS group.
min_instance_number	Integer	Specifies the minimum number of instances in the AS group.
max_instance_number	Integer	Specifies the maximum number of instances in the AS group.
cool_down_time	Integer	Specifies the cooldown period (s).
lb_listener_id	String	Specifies the ID of a typical ELB listener. ELB listener IDs are separated using a comma (,).

Parameter	Туре	Description
lbaas_listeners	Array of lbaas_liste ners objects	Specifies enhanced load balancers. For details, see Table 5-12 .
available_zones	Array of strings	Specifies the AZ information.
networks	Array of networks objects	Specifies the network information. For details, see Table 5-13 .
security_groups	Array of security_g roups objects	Specifies the security group information. For details, see Table 5-16 .
create_time	String	Specifies the time when an AS group was created. The time format complies with UTC.
vpc_id	String	Specifies the ID of the VPC to which the AS group belongs.
detail	String	Specifies details about the AS group. If a scaling action fails, this parameter is used to record errors.
is_scaling	Boolean	Specifies the scaling flag of the AS group.
health_periodic_audit_m ethod	String	Specifies the health check method.
health_periodic_audit_ti me	Integer	Specifies the health check interval.
health_periodic_audit_gr ace_period	Integer	Specifies the grace period for health check.
instance_terminate_polic y	String	Specifies the instance removal policy.
notifications	Array of strings	Specifies the notification mode. EMAIL refers to notification by email. This notification mode has been canceled. You are advised to configure the notification function for the AS group. For details, see Notifications .
delete_publicip	Boolean	Specifies whether to delete the EIP bound to the ECS when deleting the ECS.

Parameter	Туре	Description
delete_volume	Boolean	Specifies whether to delete the data disks attached to the ECS when deleting the ECS.
cloud_location_id	String	This parameter is reserved.
enterprise_project_id	String	Specifies the enterprise project ID.
activity_type	String	Specifies the type of the AS action.
multi_az_priority_policy	String	Specifies the priority policy used to select target AZs when adjusting the number of instances in an AS group.
description	String	Specifies the description of the AS group.
iam_agency_name	String	Specifies the agency name.

Table 5-12 lbaas_listeners field description

Parameter	Туре	Description
listener_id	String	Specifies the listener ID.
pool_id	String	Specifies the backend ECS group ID.
protocol_port	Integer	Specifies the backend protocol ID, which is the port on which a backend ECS listens for traffic.
weight	Integer	Specifies the weight, which determines the portion of requests a backend ECS processes when being compared to other backend ECSs added to the same listener.
protocol_version	String	Specifies which version of IP addresses of backend servers will be bound with the load balancer. The value can be IPv4 or IPv6.

Table 5-13 networks field description

Parameter	Туре	Description
id	String	Specifies the subnet ID.
ipv6_enable	Boolea n	Specifies whether to support IPv6 addresses. If this parameter is set to true , the NIC supports IPv6 addresses. The default value is false .

Parameter	Туре	Description
ipv6_bandwidth	ipv6_b andwi dth object	Specifies the shared bandwidth of an IPv6 address. This parameter is left blank by default, indicating that no IPv6 shared bandwidth is bound.
allowed_address_pairs	Array of allowe d_addr ess_pai rs objects	Specifies whether to allow the system to check the source and destination addresses.

Table 5-14 ipv6_bandwidth field description

Parameter	Туре	Description
id	String	Specifies the ID of the shared bandwidth of an IPv6 address.

Table 5-15 allowed_address_pairs field description

Parameter	Туре	Description
ip_address	String	Specifies whether to allow the system to check the source and destination addresses.
		This function is enabled by default. This parameter cannot be left empty.
		To disable this function, set the value to 1.1.1.1/0.
		To enable this function, set a value other than 1.1.1.1/0.

Table 5-16 security_groups field description

Parameter	Туре	Description
id	String	Specifies the security group ID.

Example Response

```
"limit": 20,
"scaling_groups": [
     "networks": [
          "id": "a8327883-6b07-4497-9c61-68d03ee193a",
          "ipv6_enable": true,
          "ipv6_bandwidth":
                "id": "076ee2ff-f23e-4338-b8ac-1bc7278532d5"
       }
     "available_zones": [
         "XXXa",
          "XXXb"
     ],
"detail": null,
     "scaling_group_name": "as-group-test",
     "scaling_group_id": "77a7a397-7d2f-4e79-9da9-6a35e2709150",
     "scaling_group_status": "INSERVICE",
     "scaling_configuration_id": "1d281494-6085-4579-b817-c1f813be835f",
     "scaling_configuration_name": "healthCheck",
     "current_instance_number": 0,
     "desire_instance_number": 1,
     "min instance number": 0,
     "max_instance_number": 500,
     "cool_down_time": 300,
     "lb_listener_id": "f06c0112570743b51c0e8fbe1f235bab",
     "security_groups": [
       {
          "id": "8a4b1d5b-0054-419f-84b1-5c8a59ebc829"
       }
     "create_time": "2015-07-23T02:46:29Z",
     "vpc_id": "863ccae2-ee85-4d27-bc5b-3ba2a198a9e2",
     "health_periodic_audit_method": "ELB_AUDIT",
     "health_periodic_audit_time": 5,
     "health_periodic_audit_grace_period": 600,
     "instance_terminate_policy": "OLD_CONFIG_OLD_INSTANCE",
     "is_scaling": false,
     "delete_publicip": false,
     "enterprise_project_id": "c92b1a5d-6f20-43f2-b1b7-7ce35e58e413",
     "multi_az_priority_policy": "PICK_FIRST",
"iam_agency_name":"test"
"total_number": 1,
"start_number": 0
```

Returned Values

Normal200

Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.

Returned Value	Description
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See **Error Codes**.

5.1.3 Querying an AS Group

Function

This API is used to query details about a specified AS group by group ID.

URI

GET /autoscaling-api/v1/{project_id}/scaling_group/{scaling_group_id}

Table 5-17 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_group_id	Yes	String	Specifies the AS group ID.

Request

None

Example Request

This example queries the details about the AS group with ID d4e50321-3777-4135-97f8-9f5e9714a4b0.

GET https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_group/d4e50321-3777-4135-97f8-9f5e9714a4b0

Response

Table 5-18 Response parameters

Parameter	Туре	Description
scaling_group	scaling_groups object	Specifies details about the AS group.

Table 5-19 scaling_groups field description

Parameter	Туре	Description
scaling_group_name	String	Specifies the name of the AS group.
scaling_group_id	String	Specifies the AS group ID.
scaling_group_status	String	Specifies the AS group status.
scaling_configuration_id	String	Specifies the AS configuration ID.
scaling_configuration_na me	String	Specifies the AS configuration name.
current_instance_number	Integer	Specifies the number of current instances in the AS group.
desire_instance_number	Integer	Specifies the expected number of instances in the AS group.
min_instance_number	Integer	Specifies the minimum number of instances in the AS group.

Parameter	Туре	Description
max_instance_number	Integer	Specifies the maximum number of instances in the AS group.
cool_down_time	Integer	Specifies the cooldown period (s).
lb_listener_id	String	Specifies the ID of a typical ELB listener. ELB listener IDs are separated using a comma (,).
lbaas_listeners	Array of lbaas_liste ners objects	Specifies enhanced load balancers. For details, see Table 5-12 .
available_zones	Array of strings	Specifies the AZ information.
networks	Array of networks objects	Specifies the network information. For details, see Table 5-13 .
security_groups	Array of security_g roups objects	Specifies the security group information. For details, see Table 5-16 .
create_time	String	Specifies the time when an AS group was created. The time format complies with UTC.
vpc_id	String	Specifies the ID of the VPC to which the AS group belongs.
detail	String	Specifies details about the AS group. If a scaling action fails, this parameter is used to record errors.
is_scaling	Boolean	Specifies the scaling flag of the AS group.
health_periodic_audit_m ethod	String	Specifies the health check method.
health_periodic_audit_ti me	Integer	Specifies the health check interval.
health_periodic_audit_gr ace_period	Integer	Specifies the grace period for health check.
instance_terminate_polic y	String	Specifies the instance removal policy.

Parameter	Туре	Description
notifications	Array of	Specifies the notification mode.
	strings	EMAIL refers to notification by email.
		This notification mode has been canceled. You are advised to configure the notification function for the AS group. For details, see Notifications .
delete_publicip	Boolean	Specifies whether to delete the EIP bound to the ECS when deleting the ECS.
delete_volume	Boolean	Specifies whether to delete the data disks attached to the ECS when deleting the ECS.
cloud_location_id	String	This parameter is reserved.
enterprise_project_id	String	Specifies the enterprise project ID.
activity_type	String	Specifies the type of the AS action.
multi_az_priority_policy	String	Specifies the priority policy used to select target AZs when adjusting the number of instances in an AS group.
description	String	Specifies the description of the AS group.
iam_agency_name	String	Specifies the agency name.

Table 5-20 networks field description

Parameter	Туре	Description
id	String	Specifies the subnet ID.
ipv6_enable	Boolea n	Specifies whether to support IPv6 addresses. If this parameter is set to true , the NIC supports IPv6 addresses. The default value is false .
ipv6_bandwidth	ipv6_b andwi dth object	Specifies the shared bandwidth of an IPv6 address. This parameter is left blank by default, indicating that no IPv6 shared bandwidth is bound.

Parameter	Туре	Description
allowed_address_pairs	Array of allowe d_addr ess_pai rs objects	Specifies whether to allow the system to check the source and destination addresses.

Table 5-21 ipv6_bandwidth field description

Parameter	Туре	Description
id	String	Specifies the ID of the shared bandwidth of an IPv6 address.

Table 5-22 allowed_address_pairs field description

Parameter	Туре	Description
ip_address	String	Specifies whether to allow the system to check the source and destination addresses.
		This function is enabled by default. This parameter cannot be left empty.
		To disable this function, set the value to 1.1.1.1/0.
		To enable this function, set a value other than 1.1.1.1/0.

Example Response

```
"scaling_group_id": "d4e50321-3777-4135-97f8-9f5e9714a4b0",
   "scaling_group_status": "INSERVICE",
  "scaling_configuration_id": "53579851-3841-418d-a97b-9cecdb663a90",
   "scaling_configuration_name": "press",
   "current_instance_number": 7,
  "desire_instance_number": 8,
  "min_instance_number": 0,
   "max_instance_number": 100,
   "cool_down_time": 900,
   "lb_listener_id": null,
   "security_groups": [
     {
        "id": "23b7b999-0a30-4b48-ae8f-ee201a88a6ab"
     }
  ],
"create_time": "2015-09-01T08:36:10Z",
   "vpc_id": "3e22f934-800d-4bb4-a588-0b9a76108190",
   "health_periodic_audit_method": "NOVA_AUDIT",
   "health_periodic_audit_time": 5,
  "health_periodic_audit_grace_period": 600,
  "instance_terminate_policy": "OLD_CONFIG_OLD_INSTANCE",
  "is_scaling": true,
"delete_publicip": false,
  "notifications": null,
  "enterprise_project_id": "c92b1a5d-6f20-43f2-b1b7-7ce35e58e413", "activity_type": "MODIFY_ELB",
  "multi_az_priority_policy": "PICK_FIRST",
  "iam_agency_name":"test"
}
```

Returned Values

Normal

200

Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.

Returned Value	Description
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See Error Codes.

5.1.4 Modifying an AS Group

Function

This API is used to modify a specified AS group.

- When the AS configuration of an AS group is changed, the existing instances created using the original AS configuration are not affected.
- If no scaling action is being performed, you can modify its subnet, ELB, and AZ configurations.
- Changing the number of expected instances in an AS group will trigger a scaling action to add or remove instances to or from the AS group. The number of expected instances must be greater than or equal to the minimum number of instances and less than or equal to the maximum number of instances.

URI

PUT /autoscaling-api/v1/{project_id}/scaling_group/{scaling_group_id}

Table 5-23 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_group_i d	Yes	String	Specifies the AS group ID.

Request Parameters

Table 5-24 Request parameters

Parameter	Mandatory	Туре	Description
scaling_group _name	No	String	Specifies the AS group name. The name contains only letters, digits, underscores (_), and hyphens (-), and cannot exceed 64 characters.
desire_instanc e_number	No	Integer	Specifies the expected number of instances. The value ranges from the minimum number of instances to the maximum number of instances.
min_instance_ number	No	Integer	Specifies the minimum number of instances.
max_instance_ number	No	Integer	Specifies the maximum number of instances, which is greater than or equal to the minimum number of instances.
cool_down_ti me	No	Integer	Specifies the cooldown period (in seconds). The value ranges from 0 to 86400 and is 300 by default.
available_zon es	No	Array of strings	Specifies the AZ information. The instances added in a scaling action will be created in a specified AZ. If you do not specify an AZ, the system automatically specifies one.
			For details, see Regions and Endpoints.
			You can change the AZ of an AS group only when no scaling action is being performed in the group.

Parameter	Mandatory	Туре	Description
networks	No	Array of networks objects	Specifies network information. You can select up to five subnets. The first subnet you select is used by the primary NICs of ECSs by default. For the information about the data structure, see Table 5-26.
			The value of this parameter can be changed only when all the following conditions are met:
			No scaling actions are triggered in the AS group.
			• The number of instances in the AS group is 0.
			The AS group is not in service.
security_grou ps	No	Array of security_ groups objects	Specifies the security group. A maximum of one security group can be selected. For how to obtain security group information, see Querying Security Groups . For information about the data structure, see Table 5-29 .
			If the security group is specified both in the AS configuration and AS group, scaled ECS instances will be added to the security group specified in the AS configuration. If the security group is not specified in either of them, scaled ECS instances will be added to the default security group. For your convenience, you are advised to specify the security group in the AS configuration. The value of this parameter can be changed only when all the following conditions are met:
			No scaling actions are triggered in the AS group. The number of instances in the
			• The number of instances in the AS group is 0.
			The AS group is not in service.

Parameter	Mandatory	Туре	Description
lb_listener_id	No	String	Specifies the ELB listener ID. You can add up to six load balancer listeners. Separate listener IDs with commas (,). For details about how to obtain the listener ID, see Querying Load Balancers. The value of this parameter can be changed only when all the following conditions are met: No scaling actions are triggered in the AS group. The number of instances in the AS group is 0.
lbaas_listeners	No	Array of lbaas_list eners objects	Specifies information about an ELB load balancer. You can add up to six load balancers. This parameter is in list data structure. For details, see Table 5-25. For how to obtain information about an enhanced load balancer, see Querying Backend Server Groups.
health_periodi c_audit_meth od	No	String	Specifies the health check method for instances in the AS group. The health check methods include ELB_AUDIT and NOVA_AUDIT. When load balancing is configured for an AS group, the default value is ELB_AUDIT. Otherwise, the default value is NOVA_AUDIT. • ELB_AUDIT: indicates the ELB health check, which takes effect in an AS group with a listener. • NOVA_AUDIT: indicates the ECS health check, which is the health check method delivered with AS.

Parameter	Mandatory	Туре	Description
health_periodi c_audit_time	No	Integer	Specifies the health check period for the instances in the AS group. The value can be 1, 5, 15, 60, or 180 in the unit of minutes. If the value is set to 0, health check is performed every 10 seconds.
instance_term inate_policy	No	String	 Specifies the instance removal policy. OLD_CONFIG_OLD_INSTANCE (default): The earlier-created instances based on the earlier-created AS configurations are removed first. OLD_CONFIG_NEW_INSTANC E: The later-created instances based on the earlier-created AS configurations are removed first. OLD_INSTANCE: The earlier-created instances are removed first. NEW_INSTANCE: The later-created instances are removed first.
health_periodi c_audit_grace _period	No	Integer	Specifies the grace period for instance health check. The unit is second and value range is 0-86400. The default value is 600. The health check grace period starts after an instance is added to an AS group and is enabled. The AS group will start checking the instance status only after the grace period ends. This parameter is valid only when the instance health check method of the AS group is ELB_AUDIT.
scaling_config uration_id	No	String	Specifies the AS configuration ID, which can be obtained using the API for querying AS configurations. For details, see Querying AS configurations.

Parameter	Mandatory	Туре	Description
notifications	No	Array of strings	Specifies the notification mode. EMAIL refers to notification by email. This notification mode has been canceled. You are advised to configure the notification function for the AS group. For details, see Notifications.
delete_publici p	No	Boolean	Specifies whether to delete the EIP bound to the ECS when deleting the ECS. If you do not want to delete the EIP, set this parameter to false. Then, the system only unbinds the EIP from the ECS and reserves the EIP. • true: deletes the EIP bound to the ECS when deleting the ECS. If the EIP is billed on a yearly/monthly basis, it will not be deleted when the ECS is deleted. • false: only unbinds the EIP bound to the ECS when deleting the ECS.
delete_volume	No	Boolean	Specifies whether to delete the data disks attached to the ECS when deleting the ECS. The value can be true or false . The default value is false . • true : deletes the data disks attached to the ECS when deleting the ECS. If the data disks are billed a yearly/monthly basis, they will not be deleted when the ECS is deleted. • false : only detaches the data disks attached to the ECS when deleting the ECS.

Parameter	Mandatory	Туре	Description
enterprise_pro ject_id	No	String	Specifies the enterprise project ID, which is used to specify the enterprise project to which the AS group belongs. • If the value is 0 or left blank, the AS group belongs to the default enterprise project. • If the value is a UUID, the AS group belongs to the enterprise project corresponding to the UUID For how to obtain an enterprise project ID, see Querying Enterprise Projects. If an enterprise project is configured for an AS group, ECSs created in this AS group also belong to this enterprise project. Otherwise, the default enterprise project will be used. NOTE For details about enterprise project
			features, see <i>Enterprise Project Management Service</i> .
multi_az_prior ity_policy	No	String	Specifies the priority policy used to select target AZs when adjusting the number of instances in an AS group. • EQUILIBRIUM_DISTRIBUTE (default): When adjusting the number of instances, ensure that instances in each AZ in the available_zones list is evenly distributed. If instances cannot be added in the target AZ, select another AZ based on the PICK_FIRST policy. • PICK_FIRST: When adjusting the number of instances, target AZs are determined in the order in the available_zones list.
description	No	String	Specifies the description of the AS group. The value can contain 1 to 256 characters.

Parameter	Mandatory	Туре	Description
iam_agency_n ame	No	String	Specifies the agency name, in 1 to 64 characters.
			If iam_agency_name is set to null, you do not need to modify it.
			If iam_agency_name is left blank or has a value, you need to modify it.

Table 5-25 lbaas_listeners field description

Parameter	Mandatory	Туре	Description
pool_id	Yes	String	Specifies the backend ECS group ID.
			The value of this parameter can be changed only when all the following conditions are met:
			No scaling actions are triggered in the AS group.
			• The number of instances in the AS group is 0.
			The AS group is not in service.
protocol_port	Yes	Integer	Specifies the backend protocol ID, which is the port on which a backend ECS listens for traffic. The port ID ranges from 1 to 65535.
weight	Yes	Integer	Specifies the weight, which determines the portion of requests a backend ECS processes when being compared to other backend ECSs added to the same listener. The value of this parameter ranges from 0 to 100.

Parameter	Mandatory	Туре	Description
protocol_versi on	No	String	Specifies which version of IP addresses of backend servers will be bound with the load balancer. The value can be IPv4 or IPv6. NOTE
			 Instances in an AS group do not support IPv4/IPv6 dual-stack on multiple NICs. IPv4/IPv6 dual- stack is only available for the first NIC that supports both IPv4 and IPv6. The NIC may be a primary NIC or an extension NIC.
			Only ECSs with flavors that support IPv6 addresses can use IPv4/IPv6 dual-stack networks. If you want to select IPv6 for this parameter, make sure that you have selected such ECS flavors in a supported region.
			If you add two or more load balancers whose pool_id, protocol_port, and protocol_version settings are totally same, deduplication will be performed.

Table 5-26 networks field description

Parameter	Mandatory	Туре	Description
id	Yes	String	Specifies the subnet ID.
ipv6_enable	No	Boolean	Specifies whether to support IPv6 addresses.
			true : indicates that the NIC supports IPv6 addresses.
			false : indicates that the NIC does not support IPv6 addresses. The default value is false .
ipv6_bandwid th	No	ipv6_ban dwidth object	Specifies the shared bandwidth of an IPv6 address. This parameter is left blank by default, indicating that no shared IPv6 bandwidth is bound.
allowed_addr ess_pairs	No	Array of allowed_address_pairs objects	Specifies whether to allow the system to check the source and destination addresses.

Table 5-27 ipv6_bandwidth field description

Parameter	Mandatory	Туре	Description
id	Yes	String	Specifies the ID of the shared bandwidth of an IPv6 address.

Table 5-28 allowed_address_pairs field description

Parameter	Туре	Description
ip_address	String	Specifies whether to allow the system to check the source and destination addresses.
		This function is enabled by default. This parameter cannot be left empty.
		To disable this function, set the value to 1.1.1.1/0.
		To enable this function, set a value other than 1.1.1.1/0.

Table 5-29 security_groups field description

Parameter	Mandatory	Туре	Description
id	Yes	String	Specifies the ID of the security group.

Example Request

This example changes the name, AS configuration, enterprise project, expected number of instances, minimum number of instances, maximum number of instances, and cooldown period of the AS group with ID

a8327883-6b07-4497-9c61-68d03ee193a1.

```
PUT https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_group/
a8327883-6b07-4497-9c61-68d03ee193a1

{
    "scaling_group_name": "group_1",
    "scaling_configuration_id": "f8327883-6a07-4497-9a61-68c03e8e72a2",
    "enterprise_project_id": "c92b1a5d-6f20-43f2-b1b7-7ce35e58e413",
    "desire_instance_number": 1,
    "min_instance_number": 1,
    "max_instance_number": 3,
    "cool_down_time": 200,
    "multi_az_priority_policy": "PICK_FIRST",
    "iam_agency_name": "test"
}
```

Response parameters

Table 5-30 Response parameters

Parameter	Туре	Description
scaling_group_id	String	Specifies the AS group ID.

Example Response

```
{
    "scaling_group_id": "a8327883-6b07-4497-9c61-68d03ee193a1"
}
```

Returned Values

- Normal200
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.

Returned Value	Description	
503 Service Unavailable	Failed to complete the request because the system is unavailable.	
504 Gateway Timeout	A gateway timeout error occurred.	

See Error Codes.

5.1.5 Deleting an AS Group

Function

This interface is used to delete a specified AS group.

- **force_delete** specifies whether to forcibly delete an AS group, remove the ECS instances and release them when the AS group is running instances or performing scaling actions. By default, its value is **no**, which means not to forcibly delete the AS group.
- If the value of **force_delete** is set to **no**, the AS group can be deleted only when both the following conditions are met:
 - The AS group is performing no scaling action.
 - The number of running ECS instances (current_instance_number) is 0.
- If the value of force_delete is set to yes, the AS group enters the DELETING state, rejecting new requests for scaling actions while completing the existing scaling actions. Then, all ECS instances are removed from the AS group and the AS group is deleted. Note that the manually added ECS instances will be removed from the AS group and the ECS instances automatically created by AS will be automatically deleted.



Forcibly deleting an AS group may not delete ECS instances in the group.

URI

DELETE /autoscaling-api/v1/{project_id}/scaling_group/{scaling_group_id}

Table 5-31 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_group_i d	Yes	String	Specifies the AS group ID.

Parameter	Mandatory	Туре	Description
force_delete	No	String	Specifies whether to forcibly delete an AS group. Options: • no (default): indicates that the AS group is not forcibly deleted. • yes: indicates to forcibly delete an AS group.

Request

None

Example Request

This example deletes the AS group with ID a8327883-6b07-4497-9c61-68d03ee193a1.

DELETE https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_group/a8327883-6b07-4497-9c61-68d03ee193a1?force_delete=yes

Response

None

Example Response

None

Returned Values

- Normal204
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.

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

See Error Codes.

5.1.6 Enabling or Disabling an AS Group

Function

This interface is used to enable or disable a specified AS group.

□ NOTE

For a disabled AS group, AS does not automatically trigger any scaling actions. When an AS group has an in-progress scaling action, the scaling action does not stop immediately after the AS group is disabled.

URI

POST /autoscaling-api/v1/{project_id}/scaling_group/{scaling_group_id}/action

Table 5-32 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.

Parameter	Mandatory	Туре	Description
scaling_group_i d	Yes	String	Specifies the AS group ID.

Request

Table 5-33 Request parameters

Parameter	Mandatory	Туре	Description
action	Yes	String	Specifies a flag for enabling or disabling an AS group. • resume: enables the AS group. • pause: disables the AS group.

Example Request

• This example enables the AS group with ID a8327883-6b07-4497-9c61-68d03ee193a1.

```
POST https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_group/
a8327883-6b07-4497-9c61-68d03ee193a1/action

{
    "action": "resume"
}
```

 This example disables the AS group with ID a8327883-6b07-4497-9c61-68d03ee193a1.

```
POST https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_group/a8327883-6b07-4497-9c61-68d03ee193a1/action

{
    "action": "pause"
}
```

Response

None

Example Response

None

Returned Values

- Normal204
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See Error Codes.

5.2 AS Configurations

5.2.1 Creating an AS Configuration

Function

This API is used to create an AS configuration.

- An AS configuration is a template specifying specifications for the instances to be added to an AS group.
- The AS configuration is decoupled from the AS group. An AS configuration can be used by multiple AS groups.
- Up to 100 AS configurations can be created for each user.

URI

POST /autoscaling-api/v1/{project_id}/scaling_configuration

Table 5-34 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.

Request

Table 5-35 Request parameters

•	•		
Parameter	Mandatory	Туре	Description
scaling_configu ration_name	No	String	Specifies the AS configuration name. The name contains only letters, digits, underscores (_), and hyphens (-), and cannot exceed 64 characters.
instance_confi g	No	Object	Specifies the ECS configuration. For details, see Table 5-36 .

Parameter	Mandatory	Туре	Description
Parameter source_scaling_ configuration_i d	Mandatory	Type String	Specifies the ID of the source AS configuration, which will be used together with instance_config to create a new AS configuration. NOTE If instance_id is specified in instance_config, instance_id is preferentially used to create the new AS configuration, and source_scaling_configuration_i d does not take effect. If instance_id is not specified in instance_config, source_scaling_configuration_i d and instance_config are used together to create the new AS configuration. If a parameter in
			 If a parameter in instance_config is set to null, the corresponding setting of the source AS configuration takes effect. If a parameter in
			instance_config is not set to null or left empty, this parameter overwrites the corresponding setting of the source AS configuration.
			 If source_scaling_configuration_i d is not specified, scaling_configuration_name and instance_config are mandatory.

Table 5-36 instance_config field description

Parameter	Mandatory	Туре	Description
instance_id	No	String	Specifies the ECS ID. When you want to create an AS configuration from an ECS, specify this parameter. In this case, the flavorRef, imageRef, disk, tenancy, dedicated_host_id, and security_groups fields do not take effect. If the instance_id field is not specified, flavorRef, imageRef, and disk fields are mandatory.
flavorRef	No	String	Specifies the ECS flavor ID. A maximum of 10 flavors can be selected. Use a comma (,) to separate multiple flavor IDs. You can obtain an ECS flavor ID from the API for querying details about flavors and extended flavor information. For details, see Querying Details About Flavors and Extended Flavor Information.
imageRef	No	String	Specifies the image ID. Its value is the same as that of <code>image_id</code> for specifying the image selected during ECS creation. You can obtain an image ID by calling the IMS API for querying images. For details, see <code>Querying Images</code> .
disk	No	Array of disk objects	Specifies the disk group information. System disks are mandatory and data disks are optional. For details, see Table 5-37 .
key_name	No	String	Specifies the name of the SSH key pair used to log in to the ECS. For details about how to obtain a key pair, see Creating and Importing an SSH Key Pair. NOTE If both key_name and user_data are specified, user_data only injects user data.

Parameter	Mandatory	Туре	Description
personality	No	Array of personalit y objects	Specifies information about the injected file. Only text files can be injected. A maximum of five files can be injected at a time and the maximum size of each file is 1 KB. For details, see Table 5-39 .
public_ip	No	public_ip object	Specifies the EIP of the ECS. The EIP can be configured in two ways. For details, see Table 5-40. • Do not use an EIP. In this case, this parameter is unavailable. • Automatically assign an EIP. You need to specify the information about the new EIP.
			NOTE If you enable fine-grained policy and associate the AS configuration with an EIP specified to an AS group, the fine-grained policy granted to you must contain the authorization item that allows the vpc:publicIps:create action.

Parameter	Mandatory	Туре	Description
user_data	No	String	Specifies the user data to be injected during the ECS creation process. Text, text files, and gzip files can be injected. For more information, see Passing User Data to ECSs.
			Constraints:
			The content to be injected must be encoded with base64. The maximum size of the content to be injected (before encoding) is 32 KB.
			 If key_name is not specified, the data injected by user_data is the password of user root for logging in to the ECS by default.
			 This parameter is mandatory when you create a Linux ECS using the password authentication mode. Its value is the initial user root password.
			Password complexity requirements:
			• Consists of 8 to 26 characters.
			 Contains at least three of the following character types: uppercase letters, lowercase letters, digits, and special characters (!@\$%^=+ [{}]:,./?).
			Examples:
			 Use a plaintext password (risky in security), for example, Cloud.1234. #! /bin/bash echo 'root:Cloud.1234' chpasswd;
			 Use a ciphertext password (recommended) #! /bin/bash echo 'root:\$6\$V6azyeLwcD3CHlpY \$BN3VVq18fmCkj66B4zdHLWevqcxlig' chpasswd -e
			In the preceding command output, \$6\$V6azyeLwcD3CHlpY \$BN3VVq18fmCkj66B4zdHLWe vqcxlig is the ciphertext

Parameter	Mandatory	Туре	Description
			password, which can be generated as follows:
			1. Generate an encrypted salt value. [root@test linux]# python -c "import crypt, getpass, pwd;print crypt.mksalt()" \$6\$V6azyeLwcD3CHlpY
			2. Generate a ciphertext password based on the salt value. [root@test linux]# python -c "import crypt, getpass, pwd;print crypt.crypt('Cloud.1234','\\$6\ \$V6azyeLwcD3CHlpY')" \$6\$V6azyeLwcD3CHlpY \$BN3VVq18fmCkj66B4zdHLWevqcxlig
			Examples:
			Linux#! /bin/bashecho user_test >> /home/user.txt
			Windows
			rem cmd echo 111 > c:\aaa.txt
			NOTE Data injection is not supported for ECSs that use a Linux image and the password login mode.
metadata	No	metadata object	Specifies the ECS metadata. For details, see Table 5-43 .
			NOTE
			 This parameter is mandatory when a Windows ECS with password authentication is created.
			 This parameter does not allow users to write data. It is mandatory when the ECS is to be created using a Windows image.

Parameter	Mandatory	Туре	Description
security_group s	No	Array of security_g roups objects	Specifies security groups. For details, see Table 5-44 . For how to obtain information about security groups using VPC IDs, see Querying Security Groups in <i>Virtual Private Cloud API Reference</i> .
			If the security group is specified both in the AS configuration and AS group, scaled ECS instances will be added to the security group specified in the AS configuration. If the security group is not specified in either of them, scaled ECS instances will be added to the default security group. For your convenience, you are advised to specify the security group in the AS configuration.
server_group_i d	No	String	Specifies the ECS group ID. For how to obtain an ECS group ID, see Querying ECS Groups .
tenancy	No	String	Specifies that ECSs are created on DeHs. Options:
			• dedicated : Specifies that ECSs are created on DeHs.
			 This parameter is not specified.
dedicated_host _id	No	String	Specifies the ID of a DeH. NOTE
			 This parameter is valid only when tenancy is set to dedicated.
			 If this parameter is specified, ECSs will be created on a specified DeH.
			 If this parameter is not specified, the system automatically selects the DeH with the maximum available memory size from the DeHs that meet specifications requirements to create the ECSs, thereby balancing load of the DeHs.

Parameter	Mandatory	Туре	Description
multi_flavor_p riority_policy	No	String	Specifies the priority policy used when there are multiple flavors and instances to be created using an AS configuration.
			PICK_FIRST (default): When an ECS is added for capacity expansion, the target flavor is determined in the order in the flavorRef list.
			COST_FIRST: When an ECS is added for capacity expansion, the target flavor is determined for minimal expenses.
market_type	No	String	Specifies a billing mode for an ECS. The options are as follows:
			Pay-per-use, which is not specified
			Spot pricing

□ NOTE

For a Linux ECS, its password can be injected only using **userdata**. For a Windows ECS, its password can be injected only using metadata **admin_pass**.

Table 5-37 disk field description

Parameter	Mandatory	Туре	Description
size	Yes	Integer	Specifies the disk size. The unit is GB.
			The system disk size ranges from 1 to 1024 and must be greater than or equal to the minimum size (min_disk value) of the system disk specified in the image.
			The data disk size ranges from 10 to 32768.

Parameter	Mandatory	Туре	Description
volume_type	Yes	String	Specifies the ECS system disk type. The disk type must match the available disk type.
			The value can be SATA, SAS, GPSSD, SSD, GPSSD2, ESSD2, and ESSD.
			• SSD: the ultra-high I/O type
			SAS: the high I/O type
			• SATA: the common I/O type
			GPSSD: the general purpose SSD type
			• ESSD : the extreme SSD type
			• GPSSD2 : the general purpose SSD V2 type
			• ESSD2 : the extreme SSD V2 type
			If the specified disk type is not available in the AZ, the disk will fail to create.
			NOTE Different ECS flavors support different disk types. The supported disk types will be displayed on the management console. NOTE
			For details about disk types, see Disk Types and Performance.
disk_type	Yes	String	Specifies a disk type. The options are as follows:
			DATA: indicates a data disk.
			SYS: indicates a system disk.
			NOTE System disk encryption is not supported.
dedicated_stor age_id	No	String	Specifies a DSS device ID for creating an ECS disk.
			NOTE Specify DSS devices for all disks in an AS configuration or not. If DSS devices are specified, all the data stores must belong to the same AZ, and the disk types supported by a DSS device for a disk must be the same as the volume_type value.

Parameter	Mandatory	Туре	Description
data_disk_ima ge_id	No	String	Specifies the ID of a data disk image used to export data disks of an ECS.
snapshot_id	No	String	Specifies the disk backup snapshot ID for restoring the system disk and data disks using a full-ECS backup when a full-ECS image is used. NOTE You can obtain the disk backup snapshot ID using the full-ECS backup ID in Querying a Single Backup. Each disk in an AS configuration must correspond to a disk backup in the full-ECS backup by snapshot_id.
metadata	No	metadat a object	Specifies the metadata for creating disks. For details, see Table 5-38.
iops	No	Integer	Specifies the IOPS configured for an EVS disk. This parameter is mandatory only when volume_type is set to GPSSD2 or ESSD2. NOTE • For details about IOPS of GPSSD2 and ESSD2 EVS disks, see Disk Types and Performance.
			Only pay-per-use billing is supported currently.
throughput	No	Integer	Specifies the throughput of an EVS disk. The unit is MiB/s. This parameter is mandatory when volume_type is set to GPSSD2 and cannot be configured when volume_type is set to other values. NOTE • For details about the throughput range of GPSSD2
			EVS disks, see Disk Types and Performance. Only pay-per-use billing is supported currently.

Table 5-38 metadata Field Description for Creating Disks

Parameter	Mandatory	Туре	Description
systemenc rypted	No	String	Specifies encryption in metadata. The value can be 0 (encryption disabled) or 1 (encryption enabled).
			If this parameter does not exist, the disk will not be encrypted by default.
			NOTE System disk encryption is not supported.
systemcmk id	No	String	Specifies the CMK ID, which indicates encryption in metadata. This parameter is used with
			systemencrypted. NOTE
			 System disk encryption is not supported.
			 For details about how to obtain the CMK ID, see Querying the List of CMKs.

Table 5-39 personality field description

Parameter	Mandatory	Туре	Description
path	Yes	String	Specifies the path of the injected file.
			 For Linux OSs, specify the path, for example, /etc/ foo.txt, for storing the injected file.
			• For Windows, the injected file is automatically stored in the root directory of drive C. You only need to specify the file name, for example, foo . The file name contains only letters and digits.
content	Yes	String	Specifies the content of the injected file.
			The value must be the information after the content of the injected file is encoded using Base64.

Table 5-40 public_ip field description

Parameter	Mandatory	Туре	Description
eip	Yes	eip object	Specifies the EIP automatically assigned to the ECS. For details, see Table 5-41 .

Table 5-41 eip field description

Parameter	Mandatory	Туре	Description
ip_type	Yes	String	Specifies the EIP type.
			Enumerated values of the IP address type:
			• 5_bgp : indicates the dynamic BGP.
			• 5_sbgp : indicates the static BGP.
			For details, see the Public IP field in Assigning an EIP in <i>Virtual Private Cloud API Reference</i> .
bandwidth	Yes	bandwidt h object	Specifies the bandwidth of an IP address. For details, see Table 5-42 .

Table 5-42 bandwidth field description

Parameter	Mandatory	Туре	Description
size	No	Integer	Specifies the bandwidth (Mbit/s). The value range for bandwidth billed by duration is 1 to 2000 and that for bandwidth billed by traffic is 1 to 300. NOTE If share_type is set to PER, this parameter is mandatory. If share_type is set to WHOLE, this parameter is invalid. The specific range may vary depending on the configuration in each region. You can see the bandwidth range of each region on the management console. The minimum unit for bandwidth varies depending on the bandwidth range. The minimum unit is 1 Mbit/s if the allowed bandwidth size ranges from 0 to 300 Mbit/s (with 300 Mbit/s included). The minimum unit is 50 Mbit/s if the allowed bandwidth size ranges 300 Mbit/s to 1000 Mbit/s (with 1000 Mbit/s included). The minimum unit is 500 Mbit/s if the allowed bandwidth size is greater than 1000 Mbit/s.
share_type	Yes	String	Specifies the bandwidth sharing type. Enumerated values of the sharing type: • PER: dedicated
			WHOLE: shared

Parameter	Mandatory	Туре	Description
charging_mod e	No	String	Specifies the bandwidth billing mode.
			The options are as follows:
			bandwidth: billed by bandwidth.
			• traffic: billed by traffic.
			If the parameter value is out of the preceding options, creating the ECS will fail.
			NOTE
			 If share_type is set to PER, this parameter is mandatory.
			If share_type is set to WHOLE, this parameter is invalid.
id	No	String	Specifies the bandwidth ID. When using a shared bandwidth, you can select an existing shared bandwidth to create an EIP. For details, see Querying Bandwidths. NOTE
			If share_type is set to PER, this parameter is invalid.
			If share_type is set to WHOLE , this parameter is mandatory.

Table 5-43 metadata field description

Parameter	Mandat ory	Туре	Description
admin_pass	No	String	Specifies the initial login password of the administrator account for logging in to an ECS using password authentication. The Linux administrator is root , and the Windows administrator is Administrator . Password complexity requirements: • Consists of 8 to 26 characters. • Contains at least three of the following character types: uppercase letters, lowercase letters, digits, and special characters !@\$%^=+[{}]:,./? • The password cannot contain the username or the username in reversed order. • The Windows ECS password cannot contain the username, the username in reversed order or more than two
			in reversed order, or more than two consecutive characters in the username.

Table 5-44 security_groups field description

Parameter	Mandatory	Туре	Description
id	Yes	String	Specifies the ID of the security group.

Example Request

This example creates an AS configuration with name **as-config-tlzp**, image ID **627a1223-2ca3-46a7-8d5f-7aef22c74ee6**, flavor ID **s3.xlarge.4**, **40 GB SATA** system disk, and SSH key name **100vm_key**.

```
POST https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_configuration

{

"scaling_configuration_name": "as-config-tlzq",

"instance_config": {

    "flavorRef": "s3.xlarge.4",

    "imageRef": "627a1223-2ca3-46a7-8d5f-7aef22c74ee6",

    "disk": [

    {

        "size": 40,

        "volume_type": "SATA",

        "disk_type": "SYS"

    }

    ],

    "key_name": "100vm_key",

"security_groups": [{
```

```
"id": "6c22a6c0-b5d2-4a84-ac56-51090dcc33be"
}],
    "multi_flavor_priority_policy": "PICK_FIRST"
}
}
```

Response

Table 5-45 Response parameters

Parameter	Туре	Description
scaling_configuration_id	String	Specifies the AS configuration ID.

Example Response

```
{
 "scaling_configuration_id": "f8327883-6a07-4497-9a61-68c03e8e72a2"
}
```

Returned Values

- Normal200
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.

Returned Value	Description
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See Error Codes.

5.2.2 Querying AS configurations

Function

This API is used to query AS configurations based on search criteria. The results are displayed by page.

- Search criteria can be the AS configuration name, image ID, start line number, and number of records.
- If no search criteria are specified, a maximum of 20 AS configurations can be queried for a tenant by default.

URI

GET /autoscaling-api/v1/{project_id}/scaling_configuration

■ NOTE

You can type the question mark (?) and ampersand (&) at the end of the URI to define multiple search criteria. AS configurations can be searched by all optional parameters in the following table. For details, see the example request.

Table 5-46 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_configur ation_name	No	String	Specifies the AS configuration name. Supports fuzzy search.
image_id	No	String	Specifies the image ID. It is same as imageRef .

Parameter	Mandatory	Туре	Description
start_number	No	Integer	Specifies the start line number. The default value is 0 . The minimum parameter value is 0 .
limit	No	Integer	Specifies the number of query records. The default value is 20 . The value range is 0 to 100.

Request

None

Example Request

This example queries the AS configurations with image ID **37ca2b35-6fc7-47ab-93c7-900324809c5c**.

 $\label{lem:general} GET\ https://\{Endpoint\}/autoscaling-api/v1/\{project_id\}/scaling_configuration?image_id=37ca2b35-6fc7-47ab-93c7-900324809c5c$

Response

Table 5-47 Response parameters

Parameter	Туре	Description
total_number	Integer	Specifies the total number of query records.
start_number	Integer	Specifies the start line number.
limit	Integer	Specifies the number of query records.
scaling_config urations	Array of scaling_configur ations objects	Specifies the AS configuration list.

Table 5-48 scaling_configurations field description

Parameter	Туре	Description
scaling_config uration_id	String	Specifies the AS configuration ID. This parameter is globally unique.
tenant	String	Specifies the tenant ID.
scaling_config uration_name	String	Specifies the AS configuration name. Supports fuzzy search.

Parameter	Туре	Description
instance_confi g	instance _config object	Specifies the information about instance configurations.
create_time	String	Specifies the time when AS configurations are created. The time format complies with UTC.
scaling_group_ id	String	Specifies the ID of the AS group to which the AS configuration is bound.

Table 5-49 instance_config field description

Parameter	Туре	Description	
flavorRef	String	Specifies the ECS flavor ID.	
imageRef	String	Specifies the image ID. It is same as image_id .	
disk	Array of disk objects	Specifies the disk group information.	
key_name	String	Specifies the name of the SSH key pair used to log in to the ECS.	
key_fingerprint	String	Specifies the fingerprint of the SSH key pair used to log in to the ECS.	
instance_name	String	This parameter is reserved.	
instance_id	String	This parameter is reserved.	
adminPass	String	This parameter is reserved.	
personality	Array of personal ity objects	Specifies information about the injected file.	
public_ip	public_i p object	Specifies the EIP of the ECS.	
user_data	String	Specifies the Cloud-Init user data, which is encoded using Base64.	
metadata	metadat a object	Specifies the ECS metadata. For details, see Table 5-56 .	
security_group s	Array of security_groups objects	Specifies the security group information.	

Parameter	Туре	Description
server_group_i d	String	Specifies the ECS group ID.
tenancy	String	Specifies that ECSs are created on DeHs.
dedicated_host _id	String	Specifies the ID of a DeH.
market_type	String	Specifies a billing mode for an ECS, which can be spot pricing or pay-per-use.
multi_flavor_pr iority_policy	String	Specifies the priority policy used when there are multiple flavors and instances to be created using an AS configuration.

Table 5-50 disk field description

Parameter	Туре	Description	
size	Integer	Specifies the disk size. The unit is GB.	
volume_type	String	Specifies the disk type.	
disk_type	String	Specifies whether the disk is a system disk or a data disk. DATA indicates a data disk. SYS indicates a system disk.	
dedicated_stor age_id	String	Specifies the ID of the DSS device for the disk.	
data_disk_ima ge_id	String	Specifies the ID of the data disk image for creating a data disk.	
snapshot_id	String	Specifies the disk backup snapshot ID.	
metadata	metadat a object	Specifies the metadata for creating disks. For details, see Table 5-51 .	
iops	Integer	Specifies the IOPS of an EVS disk. This parameter is available when volume_type is set to GPSSD2 or ESSD2 . NOTE	
		 For details about IOPS of GPSSD2 and ESSD2 EVS disks, see Disk Types and Performance. 	
		Only pay-per-use billing is supported currently.	

Parameter	Туре	Description
throughput	Integer	Specifies the throughput of an EVS disk. The unit is MiB/s. This parameter is available when volume_type is set to GPSSD2. NOTE
		 For details about the throughput range of GPSSD2 EVS disks, see Disk Types and Performance. Only pay-per-use billing is supported currently.

Table 5-51 metadata Field Description for Creating Disks

Parameter	Туре	Description
systemenc rypted	String	Specifies encryption in metadata . The value can be 0 (encryption disabled) or 1 (encryption enabled).
		If this parameter does not exist, the disk will not be encrypted by default.
systemcm kid	String	Specifies the CMK ID, which indicates encryption in metadata. This parameter is used withsystemencrypted.
		NOTE For details about how to obtain the CMK ID, see Querying the List of CMKs.

Table 5-52 personality field description

Parameter	Туре	Description
path	String	Specifies the path of the injected file.
content	String	Specifies the content of the file to be injected. The file content is encoded using Base64.

Table 5-53 public_ip field description

Parameter	Туре	Description
eip	eip object	Specifies the automatically assigned EIP.

Table 5-54 eip field description

Parameter	Туре	Description
ip_type	String	Specifies the IP address type.
bandwidth	bandwid th object	Specifies the bandwidth of an IP address.

Table 5-55 bandwidth field description

Parameter	Туре	Description
size	Integer	Specifies the bandwidth (Mbit/s).
share_type	String	Specifies the bandwidth sharing type. Enumerated values of the sharing type: • PER: dedicated • WHOLE: shared
charging_mod e	String	 Specifies the bandwidth billing mode. bandwidth: billed by bandwidth. traffic: billed by traffic.
id	String	Specifies the bandwidth ID. You can specify a shared bandwidth when applying for an EIP with the bandwidth whose type is set to WHOLE .

Table 5-56 metadata field description

Parameter	Туре	Description
admin_pass	String	Specifies the password of the Administrator account for a Windows ECS.

Table 5-57 security_groups field description

Parameter	Туре	Description
id	String	Specifies the security group ID.

Example Response

```
{
    "limit": 20,
    "total_number": 2,
    "start_number": 0,
    "scaling_configurations": [
    {
```

```
"tenant": "ce061903a53545dcaddb300093b477d2",
     "scaling_configuration_id": "6afe46f9-7d3d-4046-8748-3b2a1085ad86",
     "scaling_configuration_name": " config_name_1",
      "instance_config": {
        "disk": [
           {
              "size": 40,
              "volume_type": "SATA",
              "disk_type": "SYS"
              "size": 100,
              "volume_type": "SATA",
"disk_type": "DATA"
           }
        "personality": null,
        "instance_name": null,
        "instance_id": null,
        "flavorRef": "103",
        "imageRef": "37ca2b35-6fc7-47ab-93c7-900324809c5c",
        "key_name": "keypair01",
        "key_fingerprint": "SHA256:qlvdUkYgSjKUxcr2uJgJJRMCKMLkJO5BPLooBcgsF8k",
        "public_ip": null,
        "user_data": null,
        "metadata": {},
        "security_groups": [{
            "id": "6c22a6c0-b5d2-4a84-ac56-51090dcc33be"
      "create_time": "2015-07-23T01:04:07Z"
  },
{
     "tenant": "ce061903a53545dcaddb300093b477d2",
     "scaling_configuration_id": "24a8c5f3-c713-4aba-ac29-c17101009e5d",
      "scaling_configuration_name": "config_name_2",
     "instance_config": {
        "disk": [
           {
             "size": 40,
              "volume_type": "SATA",
              "disk_type": "SYS"
           }
        "personality": null,
        "instance_name": null,
        "instance_id": null,
        "flavorRef": "103",
        "imageRef": "37ca2b35-6fc7-47ab-93c7-900324809c5c", "key_name": "keypair01",
        "key_fingerprint": "SHA256:qlvdUkYgSjKUxcr2uJgJJRMCKMLkJO5BPLooBcgsF8k",
        "public_ip": null,
        "user_data": null,
        "metadata": {},
        "security_groups": [{
            "id": "6c22a6c0-b5d2-4a84-ac56-51090dcc33be"
        "multi_flavor_priority_policy": "PICK_FIRST"
      "create_time": "2015-07-22T01:08:41Z"
]
```

Returned Values

Normal200

Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

Error Codes

See **Error Codes**.

5.2.3 Querying an AS Configuration

Function

This interface is used to query details about an AS configuration by configuration ID.

URI

GET /autoscaling-api/v1/{project_id}/scaling_configuration/ {scaling_configuration_id}

Table 5-58 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_configurat ion_id	Yes	String	Specifies an AS configuration ID, which is unique globally. For details, see Querying an AS Configuration.

Request

None

Example Request

This example queries the details about the AS configuration with ID **6afe46f9-7d3d-4046-8748-3b2a1085ad86**.

GET https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_configuration/6afe46f9-7d3d-4046-8748-3b2a1085ad86

Response

Response parameters

Table 5-59 Response parameters

Parameter	Туре	Description
scaling_configuratio n	scaling_configuratio ns object	Provides AS configuration details.

Table 5-60 scaling_configurations field description

Parameter	Туре	Description
scaling_config uration_id	String	Specifies the AS configuration ID. This parameter is globally unique.
tenant	String	Specifies the tenant ID.
scaling_config uration_name	String	Specifies the AS configuration name. Supports fuzzy search.

Parameter	Туре	Description
instance_conf ig	instanc e_confi g object	Specifies the information about instance configurations.
create_time	String	Specifies the time when AS configurations are created. The time format complies with UTC.
scaling_group _id	String	Specifies the ID of the AS group to which the AS configuration is bound.

Table 5-61 instance_config field description

Parameter	Туре	Description
flavorRef	String	Specifies the ECS flavor ID.
imageRef	String	Specifies the image ID. It is same as image_id .
disk	Array of disk objects	Specifies the disk group information.
key_name	String	Specifies the name of the SSH key pair used to log in to the ECS.
key_fingerprin t	String	Specifies the fingerprint of the SSH key pair used to log in to the ECS.
instance_nam e	String	This parameter is reserved.
instance_id	String	This parameter is reserved.
adminPass	String	This parameter is reserved.
personality	Array of persona lity objects	Specifies information about the injected file.
public_ip	public_i p object	Specifies the EIP of the ECS.
user_data	String	Specifies the Cloud-Init user data, which is encoded using Base64.
metadata	metada ta object	Specifies the ECS metadata. For details, see Table 5-56 .

Parameter	Туре	Description
security_grou ps	Array of security groups objects	Specifies the security group information.
server_group_ id	String	Specifies the ECS group ID.
tenancy	String	Specifies that ECSs are created on DeHs.
dedicated_hos t_id	String	Specifies the ID of a DeH.
market_type	String	Specifies a billing mode for an ECS, which can be spot pricing or pay-per-use.
multi_flavor_ priority_policy	String	Specifies the priority policy used when there are multiple flavors and instances to be created using an AS configuration.

Table 5-62 disk field description

Parameter	Туре	Description
size	Integer	Specifies the disk size. The unit is GB.
volume_type	String	Specifies the disk type.
disk_type	String	Specifies whether the disk is a system disk or a data disk. DATA indicates a data disk. SYS indicates a system disk.
dedicated_sto rage_id	String	Specifies the ID of the DSS device for the disk.
data_disk_im age_id	String	Specifies the ID of the data disk image for creating a data disk.
snapshot_id	String	Specifies the disk backup snapshot ID.
metadata	metadat a object	Specifies the metadata for creating disks. For details, see Table 5-51 .
iops	Integer	Specifies the IOPS of an EVS disk. This parameter is available when volume_type is set to GPSSD2 or ESSD2 .
		For details about IOPS of GPSSD2 and ESSD2 EVS disks, see Disk Types and Performance.
		Only pay-per-use billing is supported currently.

Parameter	Туре	Description	
throughput	Integer	Specifies the throughput of an EVS disk. The unit is MiB/s. This parameter is available when volume_type is set to GPSSD2 .	
		NOTE	
		 For details about the throughput range of GPSSD2 EVS disks, see Disk Types and Performance. 	
		Only pay-per-use billing is supported currently.	

Table 5-63 personality field description

Parameter	Туре	Description
path	String	Specifies the path of the injected file.
content	String	Specifies the content of the file to be injected. The file content is encoded using Base64.

Table 5-64 public_ip field description

Parameter	Туре	Description
eip	eip object	Specifies the automatically assigned EIP.

Table 5-65 eip field description

Parameter	Туре	Description
ip_type	String	Specifies the IP address type.
bandwidth	bandwidth object	Specifies the bandwidth of an IP address.

Table 5-66 bandwidth field description

Parameter	Туре	Description
size	Integer	Specifies the bandwidth (Mbit/s).
share_type	String	Specifies the bandwidth sharing type. Enumerated values of the sharing type: • PER: dedicated • WHOLE: shared

Parameter	Туре	Description
charging_mo de	String	 Specifies the bandwidth billing mode. bandwidth: billed by bandwidth. traffic: billed by traffic.
id	String	Specifies the bandwidth ID. You can specify a shared bandwidth when applying for an EIP with the bandwidth whose type is set to WHOLE .

Table 5-67 metadata field description

Parameter	Туре	Description
admin_pass	String	Specifies the password of the Administrator account for a Windows ECS.

Table 5-68 security_groups field description

Parameter	Туре	Description
id	String	Specifies the security group ID.

Example Response

```
"scaling_configuration": {
    "tenant": "ce061903a53545dcaddb300093b477d2",
  "scaling_configuration_id": "6afe46f9-7d3d-4046-8748-3b2a1085ad86",
   "scaling_configuration_name": " config_name_1",
   "instance_config": {
     "disk": [
           "size": 40,
           "volume_type": "SATA",
           "disk_type": "SYS"
           "size": 100,
           "volume_type": "SATA",
           "disk_type": "DATA"
        }
     ], "adminPass": "***",
     "personality": null,
"instance_name": null,
     "instance_id": null,
     "flavorRef": "103",
     "imageRef": "37ca2b35-6fc7-47ab-93c7-900324809c5c",
     "key_name": "keypair01"
     "key_fingerprint": "SHA256:qlvdUkYgSjKUxcr2uJgJJRMCKMLkJO5BPLooBcgsF8k",
      "public_ip": null,
     "user_data": null,
     "metadata": {},
     "security_groups": [{
```

```
"id": "6c22a6c0-b5d2-4a84-ac56-51090dcc33be"

}],

"multi_flavor_priority_policy": "PICK_FIRST"

},

"create_time": "2015-07-23T01:04:07Z"

}

}
```

Returned Values

- Normal200
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See Error Codes.

5.2.4 Deleting an AS Configuration

Function

This interface is used to delete a specified AS configuration.

□ NOTE

AS configurations used by AS groups cannot be deleted.

URI

DELETE /autoscaling-api/v1/{project_id}/scaling_configuration/ {scaling_configuration_id}

Table 5-69 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_ configuration _id	Yes	String	Specifies the AS configuration ID. For details, see Querying AS configurations.

Request

None

Example Request

This example deletes the AS configuration with ID 6afe46f9-7d3d-4046-8748-3b2a1085ad86.

DELETE https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_configuration/6afe46f9-7d3d-4046-8748-3b2a1085ad86

Response

None

Example Response

None

Returned Values

Normal

204

Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

Error Codes

See **Error Codes**.

5.2.5 Batch Deleting AS Configurations

Function

This interface is used to batch delete AS configurations.

• AS configurations used by AS groups cannot be deleted.

• A maximum of 50 AS configurations can be deleted at a time.

URI

POST /autoscaling-api/v1/{project_id}/scaling_configurations

Table 5-70 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.

Request

Table 5-71 Request parameters

Parameter	Mandatory	Туре	Description
scaling_configuratio n_id	Yes	Array of strings	Specifies the AS configuration ID. For details, see Querying AS configurations.

Example Request

This example deletes the AS configurations with IDs **config1** and **config2** in a batch.

```
POST https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_configurations

{
    "scaling_configuration_id": [
        "config1",
        "config2"
    ]
}
```

Response

None

Example Response

None

Returned Values

- Normal204
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See **Error Codes**.

5.3 Instances

5.3.1 Querying Instances in an AS Group

Function

This API is used to query instances in an AS group based on search criteria. The results are displayed by page.

- Search criteria can be the instance lifecycle status, instance health status, instance protection status, start line number, and number of records in the AS group.
- If no search criteria are specified, a maximum of 20 instances in an AS group can be queried by default.

URI

GET /autoscaling-api/v1/{project_id}/scaling_group_instance/{scaling_group_id}/list

□ NOTE

You can type the question mark (?) and ampersand (&) at the end of the URI to define multiple search criteria. Instances in an AS group can be searched by all optional parameters in the following table. For details, see the example request.

Table 5-72 Parameter description

Parameter	Mandator y	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_group_id	Yes	String	Specifies the AS group ID.
life_cycle_state	No	String	Specifies the instance lifecycle status in the AS group.
			• INSERVICE : The instance is enabled.
			PENDING: The instance is being added to the AS group.
			PENDING_WAIT: The instance is waiting to be added to the AS group.
			REMOVING: The instance is being removed from the AS group.
			REMOVING_WAIT: The instance is waiting to be removed from the AS group.
			• STANDBY : The instance is in standby state.
			ENTERING_STANDBY: The instance is entering the standby state.

Parameter	Mandator y	Туре	Description
health_status	No	String	Specifies the instance health status.
			INITIALIZING: The instance is initializing.
			NORMAL: The instance is normal.
			ERROR: The instance is abnormal.
protect_from_scaling_do wn	No	String	Specifies the instance protection status.
			true: Instance protection is enabled.
			false: Instance protection is disabled.
start_number	No	Intege r	Specifies the start line number. The default value is 0 . The minimum parameter value is 0 .
limit	No	Intege r	Specifies the number of query records. The default value is 20 . The value ranges from 0 to 100.

Request

None

Example Request

This example queries enabled, healthy instances in the AS group with ID e5d27f5c-dd76-4a61-b4bc-a67c5686719a.

GET https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_group_instance/e5d27f5c-dd76-4a61-b4bc-a67c5686719a/list?life_cycle_state=INSERVICE&health_status=NORMAL

Response

Table 5-73 Response parameters

Parameter	Typ e	Description
total_number	Inte ger	Specifies the total number of query records.

Parameter	Typ e	Description
start_number	Inte ger	Specifies the start line number.
limit	Inte ger	Specifies the maximum number of resources to be queried.
scaling_group_instan ces	Arra y of scal ing_ gro up_i nst anc es obje cts	Specifies details about the instances in the AS group.

Table 5-74 scaling_group_instances field description

Parameter	Туре	Description
instance_id	Strin g	Specifies the instance ID.
instance_name	Strin g	Specifies the instance name.
scaling_group_id	Strin g	Specifies the ID of the AS group to which the instance belongs.
scaling_group_name	Strin g	Specifies the name of the AS group to which the instance belongs. Supports fuzzy search.

Parameter	Туре	Description
life_cycle_state	Strin g	 Specifies the instance lifecycle status in the AS group. INSERVICE: The instance is enabled. PENDING: The instance is being added to the AS group. PENDING_WAIT: The instance is waiting to be added to the AS group. REMOVING: The instance is being removed from the AS group. REMOVING_WAIT: The instance is waiting to be removed from the AS group. STANDBY: The instance is in standby state. ENTERING_STANDBY: The instance is entering the standby state.
health_status	Strin g	Specifies the instance health status. INITIALIZING: The instance is being initialized. NORMAL: The instance is functional. ERROR: The instance is faulty.
scaling_configuratio n_name	Strin g	Specifies the AS configuration name.
scaling_configuratio n_id	Strin g	Specifies the AS configuration ID. If the returned value is not empty, the instance is an ECS automatically created in a scaling action. If the returned value is empty, the instance is an ECS manually added to the AS group.
create_time	Strin g	Specifies the time when the instance is added to the AS group. The time format complies with UTC.
protect_from_scaling _down	Bool ean	Specifies the instance protection status.

Example Response

```
{
  "limit": 10,
  "total_number": 1,
  "start_number": 0,
  "scaling_group_instances": [
    {
        "instance_id": "b25c1589-c96c-465b-9fef-d06540d1945c",
        "scaling_group_id": "e5d27f5c-dd76-4a61-b4bc-a67c5686719a",
        "scaling_group_name": "discuz",
        "life_cycle_state": "INSERVICE",
        "health_status": "NORMAL",
        "scaling_configuration_name": "discuz",
```

```
"scaling_configuration_id": "ca3dcd84-d197-4c4f-af2a-cf8ba39696ac",
    "create_time": "2015-07-23T06:47:33Z",
    "instance_name": "discuz_3D210808",
    "protect_from_scaling_down": false
    }
]
```

Returned Values

- Normal200
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See Error Codes.

5.3.2 Removing an Instance from an AS Group

Function

This interface is used to remove a specified instance from an AS group.

- You can remove instances only in INSERVICE state and only when the number of instances after the removal is greater than or equal to the minimum number of instances allowed.
- You can remove instances from an AS group only when no scaling action is in progress.

Manually added instances are removed from an AS group but are not deleted.

URI

DELETE /autoscaling-api/v1/{project_id}/scaling_group_instance/{instance_id}

Table 5-75 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
instance_id	Yes	String	Specifies the instance ID. For details, see Querying Instances in an AS Group.
instance_delet e	No	String	Specifies whether an instance is deleted when it is removed from the AS group. Options:
			no (default): The instance will not be deleted.
			• yes : The instance will be deleted.

Request

None

Example Request

This example removes the instance with ID **b25c1589-c96c-465b-9fef-d06540d1945c** from the AS group but does not delete the instance.

DELETE https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_group_instance/b25c1589-c96c-465b-9fef-d06540d1945c?instance delete=no

Response

None

Example Response

None

Returned Values

Normal204

Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See Error Codes.

5.3.3 Batch Managing Instances

Function

Add or remove instances to or from an AS group in batches.

If the instances were manually added to an AS group, they are removed from the AS group but are not deleted.

- Configure instance protection or cancel the configuration for the instances in an AS group in batches.
- Set the standby mode or cancel the setting for the instances in an AS group in batches.

■ NOTE

- A batch removal operation can be performed on a maximum of 50 instances at a time.
 Other batch operations can be performed on a maximum of 10 instances at a time.
 After instances are added to an AS group, the number of instances in the AS group
 cannot be greater than the maximum number of instances. After instances are removed
 from an AS group, the number of instances in the AS group cannot be less than the
 minimum number of instances.
- Instances can be added to an AS group only when the AS group is in the INSERVICE state and has no scaling action in progress.
- You can remove instances from an AS group only when no scaling action is in progress.
- To add instances to an AS group, ensure that the AZ of the instances falls within that of the AS group.
- Only instances in **INSERVICE** state can be removed from an AS group. Instance protection can be enabled or disabled only for **INSERVICE** instances.
- When the capacity of an AS group is automatically decreased, the instances with instance protection enabled will not be removed from the AS group.
- If the listener bound to the instance to be removed is the same as the listener in the AS group, the listener will be unbound from the instance. If the listener bound to the instance to be removed is different from the listener in the AS group, the binding relationship between the listener and instance will be reserved.

URI

POST /autoscaling-api/v1/{project_id}/scaling_group_instance/{scaling_group_id}/action

Table 5-76 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_group_i d	Yes	String	Specifies the AS group ID.

Request

Table 5-77 Request parameters

Parameter	Mandatory	Туре	Description
instances_id	Yes	Array of strings	Specifies the ECS ID.
instance_delete	No	String	Specifies whether to delete an instance when it is removed from an AS group. Options:
			no (default): The instance will not be deleted.
			yes: The instance will be deleted. If the instances were manually added to an AS group, they are removed from the AS group but are not deleted.
			This parameter takes effect only when the action is set to REMOVE .
instance_appen d	No	String	Specifies whether to add new instances when certain existing instances enter standby mode.
			Options:
			no (default): No new instances will be added.
			• yes : New instances will be added.
			This parameter takes effect only when action is set to ENTER_STANDBY .

Parameter	Mandatory	Туре	Description
action	Yes	String	Specifies an action to be performed on instances in batches. The options are as follows:
			ADD: adds instances to the AS group.
			REMOVE: removes instances from the AS group.
			PROTECT: enables instance protection.
			UNPROTECT: disables instance protection.
			ENTER_STANDBY: sets instances to standby mode.
			EXIT_STANDBY: cancels standby mode for instances.

Example Request

• This example adds two instances with IDs instance_id_1 and instance_id_2 to the AS group with ID e5d27f5c-dd76-4a61-b4bc-a67c5686719a in a batch. POST https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_group_instance/e5d27f5c-dd76-4a61-b4bc-a67c5686719a/action

```
{
    "action": "ADD",
    "instances_id": [
        "instance_id_1",
        "instance_id_2"
    ]
}
```

This example removes and deletes instances with IDs instance_id_1 and instance_id_2 from the AS group e5d27f5c-dd76-4a61-b4bc-a67c5686719a in a batch.

 $POST\ https://\{Endpoint\}/autoscaling-api/v1/\{project_id\}/scaling_group_instance/e5d27f5c-dd76-4a61-b4bc-a67c5686719a/action$

```
{
    "action": "REMOVE",
    "instances_id": [
        "instance_id_1",
        "instance_id_2"
    ],
    "instance_delete": "yes"
}
```

This example enables instance protection for instances with IDs instance_id_1
and instance_id_2 in a batch.

POST https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_group_instance/e5d27f5c-dd76-4a61-b4bc-a67c5686719a/action

```
{
  "action": "PROTECT",
  "instances_id": [
     "instance_id_1",
     "instance_id_2"
  ]
}
```

• This example disables instance protection for instances with IDs **instance_id_1** and **instance_id_2** in a batch.

```
POST https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_group_instance/e5d27f5c-dd76-4a61-b4bc-a67c5686719a/action

{
    "action": "UNPROTECT",
    "instances_id": [
        "instance_id_1",
        "instance_id_2"
    ]
}
```

• This example puts instances with IDs instance_id_1 and instance_id_2 into the standby status in a batch.

```
POST https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_group_instance/e5d27f5c-dd76-4a61-b4bc-a67c5686719a/action

{
    "action": "ENTER_STANDBY",
    "instances_id": [
        "instance_id_1",
        "instance_id_2"
    ],
    "instance_append": "yes"
}
```

• This example moves instances with IDs **instance_id_1** and **instance_id_2** out of the standby status in a batch.

```
POST https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_group_instance/e5d27f5c-dd76-4a61-b4bc-a67c5686719a/action

{
    "action": "EXIT_STANDBY",
    "instances_id": [
        "instance_id_1",
        "instance_id_2"
    ]
}
```

Response

None

Example Response

None

Returned Values

- Normal204
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See Error Codes.

5.4 AS Policies

5.4.1 Creating an AS Policy

Function

This API is used to create an AS policy.

- An AS policy defines whether to increase or decrease the number of instances in an AS group. If the number and the expected number of instances in an AS group are different due to the execution of the AS policy, AS automatically adjusts the number of instances to the expected.
- AS supports the following policies: alarm-triggered policy, periodic policy, and scheduled policy.
- In the execution of the AS policy, you can set the number of instances to be scaled or perform a scaling action according to a percentage specified in the AS policy.

URI

POST /autoscaling-api/v1/{project_id}/scaling_policy

Table 5-78 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.

Request

Table 5-79 Request parameters

Parameter	Mandatory	Туре	Description
scaling_policy_n ame	Yes	String	Specifies the AS policy name. The name contains only letters, digits, underscores (_), and hyphens (-), and cannot exceed 64 characters.
scaling_group_i d	Yes	String	Specifies the AS group ID, which can be obtained using the API for querying AS groups. For details, see Querying AS Groups.
scaling_policy_t ype	Yes	String	 ALARM (corresponding to alarm_id): indicates that the scaling action is triggered by an alarm. SCHEDULED (corresponding to scheduled_policy): indicates that the scaling action is triggered as scheduled. RECURRENCE (corresponding to scheduled_policy): indicates that the scaling action is triggered periodically.

Parameter	Mandatory	Туре	Description
alarm_id	No	String	Specifies the alarm rule ID. This parameter is mandatory when scaling_policy_type is set to ALARM. After this parameter is specified, the value of scheduled_policy does not take effect.
			After you create an alarm policy, the system automatically adds an alarm triggering activity of the autoscaling type to the alarm_actions field in the alarm rule specified by the parameter value.
			You can obtain the parameter value by querying Cloud Eye alarm rules. For details, see Querying the Alarm Rule List in Cloud Eye API Reference.
scheduled_polic y	No	schedule d_policy object	Specifies the periodic or scheduled AS policy. This parameter is mandatory when scaling_policy_type is set to SCHEDULED or RECURRENCE. After this parameter is specified, the value of alarm_id does not take effect. For details, see Table 5-80.
scaling_policy_a ction	No	scaling_ policy_a ction object	Specifies the scaling action of the AS policy. For details, see Table 5-81.
cool_down_tim e	No	Integer	Specifies the cooldown period (in seconds). The value ranges from 0 to 86400 and is 300 by default.

Table 5-80 scheduled_policy field description

Parameter	Mandatory	Туре	Description
launch_time	Yes	String	Specifies the time when the scaling action is triggered. The time format complies with UTC.
			 If scaling_policy_type is set to SCHEDULED, the time format is YYYY-MM-DDThh:mmZ.
			• If scaling_policy_type is set to RECURRENCE, the time format is hh:mm.
recurrence_typ e	No	String	Specifies the periodic triggering type. This parameter is mandatory when scaling_policy_type is set to RECURRENCE .
			Daily: indicates that the scaling action is triggered once a day.
			Weekly: indicates that the scaling action is triggered once a week.
			Monthly: indicates that the scaling action is triggered once a month.
recurrence_val ue	No	String	Specifies the day when a periodic scaling action is triggered. This parameter is mandatory when scaling_policy_type is set to RECURRENCE.
			If recurrence_type is set to Daily, the value is null, indicating that the scaling action is triggered once a day.
			 If recurrence_type is set to Weekly, the value ranges from 1 (Sunday) to 7 (Saturday). The digits refer to dates in each week and separated by a comma, such as 1,3,5.
			 If recurrence_type is set to Monthly, the value ranges from 1 to 31. The digits refer to the dates in each month and separated by a comma, such as 1,10,13,28.

Parameter	Mandatory	Туре	Description
start_time	No	String	Specifies the start time of the scaling action triggered periodically. The time format complies with UTC. The default value is the local time. The time format is YYYY-MM-DDThh:mmZ.
end_time	No	String	Specifies the end time of the scaling action triggered periodically. The time format complies with UTC. This parameter is mandatory when scaling_policy_type is set to RECURRENCE.
			When the scaling action is triggered periodically, the end time cannot be earlier than the current and start time.
			The time format is YYYY-MM-DDThh:mmZ.

Table 5-81 scaling_policy_action field description

Parameter	Mandatory	Туре	Description
operation	No	String	Specifies the operation to be performed. The default operation is ADD .
			ADD: adds specified number of instances to the AS group.
			REMOVE/REDUCE: removes or reduces specified number of instances from the AS group.
			SET: sets the number of instances in the AS group.

Parameter	Mandatory	Туре	Description
instance_numb er	No	Integer	Specifies the number of instances to be operated. The default number is 1. The value range is as follows for a default quota:
			• If operation is set to SET , the value ranges from 0 to 300.
			 If operation is set to ADD, REMOVE, or REDUCE, the value ranges from 1 to 300.
			NOTE Either instance_number or instance_percentage is required.
instance_perce ntage	No	Integer	Specifies the percentage of instances to be operated. You can increase, decrease, or set the number of instances in an AS group to the specified percentage of the current number of instances. If operation is set to ADD, REMOVE or REDUCE, the value is an integer from 1 to 20000. If operation is set to SET, the value is an integer from 0 to 20000. If neither instance_number nor instance_percentage is specified,
			the number of instances to be operated is 1.
			Either instance_number or instance_percentage is required.

This example creates a periodic AS policy named **as-policy-7a75**. The policy takes effect from **2015-12-14T03:34Z** to **2015-12-27T03:34Z**. During this period, one instance will be added to AS group with ID **5bc3aa02-b83e-454c-**

aba1-4d2095c68f8b at 16:00 every day.

```
POST https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_policy

{

"scaling_policy_name": "as-policy-7a75",

"scaling_policy_action": {

"operation": "ADD",

"instance_number": 1

},

"cool_down_time": 900,

"scheduled_policy": {

"launch_time": "16:00",

"recurrence_type": "Daily",

"start_time": "2015-12-14T03:34Z",

"end_time": "2015-12-27T03:34Z"

},
```

```
"scaling_policy_type": "RECURRENCE",
"scaling_group_id": "5bc3aa02-b83e-454c-aba1-4d2095c68f8b"
}
```

Table 5-82 Response parameters

Parameter	Туре	Description
scaling_policy_id	String	Specifies the AS policy ID.

Example Response

```
{
 "scaling_policy_id": "0h327883-324n-4dzd-9c61-68d03ee191dd"
}
```

- Normal200
- Abnormal

Returned Value	Description		
400 Bad Request	The server failed to process the request.		
401 Unauthorized	You must enter the username and password to access the requested page.		
403 Forbidden	You are forbidden to access the requested page.		
404 Not Found	The server could not find the requested page.		
405 Method Not Allowed	You are not allowed to use the method specified in the request.		
406 Not Acceptable	The response generated by the server could not be accepted by the client.		
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.		
408 Request Timeout	The request timed out.		
409 Conflict	The request could not be processed due to a conflict.		
500 Internal Server Error	Failed to complete the request because of an internal service error.		
501 Not Implemented	Failed to complete the request because the server does not support the requested function.		

Returned Value	Description	
502 Bad Gateway	Failed to complete the request because the request is invalid.	
503 Service Unavailable	Failed to complete the request because the system is unavailable.	
504 Gateway Timeout	A gateway timeout error occurred.	

See Error Codes.

5.4.2 Creating an AS Policy (V2)

Function

This API is used to create an AS policy for an AS group or bandwidth.

The difference between the V2 and V1 APIs for creating an AS policy is that V2 supports creating an AS policy for adjusting bandwidth and differentiating scaling resources by their types.

URI

POST /autoscaling-api/v2/{project_id}/scaling_policy

Table 5-83 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.

Request

Table 5-84 Request parameters

Parameter	Mandatory	Туре	Description
scaling_policy _name	Yes	String	Specifies the AS policy name. The name contains only letters, digits, underscores (_), and hyphens (-), and cannot exceed 64 characters.

Parameter	Mandatory	Туре	Description
scaling_resour ce_id	Yes	String	Specifies the scaling resource ID, which is the unique ID of an AS group or bandwidth.
			 If scaling_resource_type is set to SCALING_GROUP, this parameter indicates the unique AS group ID.
			If scaling_resource_type is set to BANDWIDTH, this parameter indicates the unique bandwidth ID. NOTE
			AS cannot scale yearly/monthly bandwidths.
scaling_resour	Yes	String	Specifies the scaling resource type.
ce_type			AS group: SCALING_GROUP
			Bandwidth: BANDWIDTH
scaling_policy	Yes	String	Specifies the AS policy type.
_type			ALARM (corresponding to alarm_id): indicates that the scaling action is triggered by an alarm.
			SCHEDULED (corresponding to scheduled_policy): indicates that the scaling action is triggered as scheduled.
			RECURRENCE (corresponding to scheduled_policy): indicates that the scaling action is triggered periodically.
			INTERVAL_ALARM (corresponding to alarm_id): indicates that the scaling action is triggered by a refined scaling policy.

Parameter	Mandatory	Туре	Description
alarm_id	No	String	Specifies the alarm rule ID. This parameter is mandatory when scaling_policy_type is set to ALARM. After this parameter is specified, the value of scheduled_policy does not take effect.
			After you create an alarm policy, the system automatically adds an alarm triggering activity of the autoscaling type to the alarm_actions field in the alarm rule specified by the parameter value.
			You can obtain the parameter value by querying Cloud Eye alarm rules. For details, see Querying the Alarm Rule List in Cloud Eye API Reference.
scheduled_pol icy	No	schedule d_policy object	Specifies the periodic or scheduled AS policy. This parameter is mandatory when scaling_policy_type is set to SCHEDULED or RECURRENCE. After this parameter is specified, the value of alarm_id does not take effect. For details, see Table 5-85.
scaling_policy _action	No	scaling_p olicy_acti on object	Specifies the scaling action of the AS policy. For details, see Table 5-86 .
cool_down_ti me	No	Integer	Specifies the cooldown period (in seconds). The value ranges from 0 to 86400 and is 300 by default.
description	No	String	Specifies the description of the AS policy. The value can contain 1 to 256 characters.

Table 5-85 scheduled_policy field description

Parameter	Mandatory	Туре	Description
launch_time	Yes	String	Specifies the time when the scaling action is triggered. The time format complies with UTC.
			If scaling_policy_type is set to SCHEDULED, the time format is YYYY-MM-DDThh:mmZ.
			• If scaling_policy_type is set to RECURRENCE, the time format is hh:mm.
recurrence_typ e	No	String	Specifies the periodic triggering type. This parameter is mandatory when scaling_policy_type is set to RECURRENCE .
			Daily: indicates that the scaling action is triggered once a day.
			Weekly: indicates that the scaling action is triggered once a week.
			Monthly: indicates that the scaling action is triggered once a month.

Mandatory	Туре	Description
No	String	Specifies the day when a periodic scaling action is triggered. This parameter is mandatory when scaling_policy_type is set to RECURRENCE.
		If recurrence_type is set to Daily, the value is null, indicating that the scaling action is triggered once a day.
		 If recurrence_type is set to Weekly, the value ranges from 1 (Sunday) to 7 (Saturday). The digits refer to dates in each week and separated by a comma, such as 1,3,5.
		 If recurrence_type is set to Monthly, the value ranges from 1 to 31. The digits refer to the dates in each month and separated by a comma, such as 1,10,13,28.
		NOTE When recurrence_type is set to Daily, this parameter does not take effect.
No	String	Specifies the start time of the scaling action triggered periodically. The time format complies with UTC. The default value is the local time.
		The time format is YYYY-MM-DDThh:mmZ.
No	String	Specifies the end time of the scaling action triggered periodically. The time format complies with UTC. This parameter is mandatory when scaling_policy_type is set to RECURRENCE. When the scaling action is triggered periodically, the end time cannot be earlier than the current and start time. The time format is YYYY-MM-
	No	No String No String

Table 5-86 scaling_policy_action field description

Parameter	Mandatory	Туре	Description
operation	No	String	Specifies the operation to be performed. The default operation is ADD .
			 If scaling_resource_type is set to SCALING_GROUP, the following operations are supported:
			 ADD: indicates adding instances.
			 REMOVE/REDUCE: indicates removing or reducing instances.
			 SET: indicates setting the number of instances to a specified value.
			If scaling_resource_type is set to BANDWIDTH, the following operations are supported:
			 ADD: indicates adding instances.
			 REDUCE: indicates reducing instances.
			 SET: indicates setting the number of instances to a specified value.
size	No	Integer	Specifies the operation size. The value is an integer from 0 to 300. The default value is 1. This parameter can be set to 0 only when operation is set to SET.
			• If scaling_resource_type is set to SCALING_GROUP, this parameter indicates the number of instances. The value is an integer from 0 to 300 and the default value is 1.
			• If scaling_resource_type is set to BANDWIDTH, this parameter indicates the bandwidth (Mbit/s). The value is an integer from 1 to 300 and the default value is 1.
			If scaling_resource_type is set to SCALING_GROUP, either size or percentage can be set.

Parameter	Mandatory	Туре	Description
percentage	No	Integer	Specifies the percentage of instances to be operated. If operation is set to ADD , REMOVE , or REDUCE , the value of this parameter is an integer from 1 to 20000. If operation is set to SET , the value is an integer from 0 to 20000.
			 If scaling_resource_type is set to SCALING_GROUP, either size or percentage can be set. If neither size nor percentage is set, the default value of size is 1.
			If scaling_resource_type is set to BANDWIDTH, percentage is unavailable.
limits	No	Integer	Specifies the operation restrictions.
			If scaling_resource_type is set to BANDWIDTH and operation is not SET, this parameter takes effect and the unit is Mbit/s.
			If operation is set to ADD , this parameter indicates the maximum bandwidth allowed.
			If operation is set to REDUCE, this parameter indicates the minimum bandwidth allowed.

This example creates an alarm-based scaling policy named hth_aspolicy_1 using the alarm rule with ID al1513822380493GvUKZwA8. The action defined in the policy is to increase the bandwidth with ID 8ade64b5-

d685-40b8-8582-4ce306ea37a6 by 1 Mbit/s when the alarm threshold configured in the alarm rule is reached until the bandwidth reaches 10 Mbit/s. POST https://{Endpoint}/autoscaling-api/v2/{project_id}/scaling_policy

```
"alarm_id": "al1513822380493GvUKZwA8",
  "cool_down_time": 900,
  "scaling_resource_id": "8ade64b5-d685-40b8-8582-4ce306ea37a6",
  "scaling_policy_action": {
        "size": 1,
        "operation": "ADD",
        "limits": 10
},
  "scaling_policy_name": "hth_aspolicy_1",
  "scaling_policy_type": "ALARM"
```

Table 5-87 Response parameters

Parameter	Туре	Description
scaling_policy_id	String	Specifies the AS policy ID.

Example Response

```
[
____"scaling_policy_id": "0h327883-324n-4dzd-9c61-68d03ee191dd"
```

- Normal200
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.

Returned Value	Description	
503 Service Unavailable	Failed to complete the request because the system is unavailable.	
504 Gateway Timeout	A gateway timeout error occurred.	

See **Error Codes**.

5.4.3 Modifying an AS Policy

Function

This API is used to modify a specified AS policy.

URI

PUT /autoscaling-api/v1/{project_id}/scaling_policy/{scaling_policy_id}

Table 5-88 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_policy_i d	Yes	String	Specifies an AS policy ID. For details, see Querying AS Policies Bound to an AS Group.

Request

Table 5-89 Request parameters

Parameter	Mandatory	Туре	Description
scaling_policy_ name	No	String	Specifies the AS policy name. The name contains only letters, digits, underscores (_), and hyphens (-), and cannot exceed 64 characters.

Parameter	Mandatory	Туре	Description
scaling_policy_ type	No	String	 ALARM (corresponding to alarm_id): indicates that the scaling action is triggered by an alarm. SCHEDULED (corresponding to scheduled_policy): indicates that the scaling action is triggered as scheduled. RECURRENCE (corresponding to scheduled_policy): indicates that the scaling action is triggered policy: indicates that the scaling action is triggered periodically.
alarm_id	No	String	Specifies the alarm rule ID. This parameter is mandatory when scaling_policy_type is set to ALARM. After this parameter is specified, the value of scheduled_policy does not take effect. After you modify an alarm policy, the system automatically adds an alarm triggering activity of the autoscaling type to the alarm_actions field in the alarm rule specified by the parameter value. You can obtain the parameter value by querying Cloud Eye alarm rules. For details, see Querying the Alarm Rule List in Cloud Eye API Reference.
scheduled_poli cy	No	schedule d_policy object	Specifies the periodic or scheduled AS policy. This parameter is mandatory when scaling_policy_type is set to SCHEDULED or RECURRENCE. After this parameter is specified, the value of alarm_id does not take effect. For details, see Table 5-90.
scaling_policy_ action	No	scaling_ policy_a ction object	Specifies the scaling action of the AS policy. For details, see Table 5-91 .

Parameter	Mandatory	Туре	Description
cool_down_tim e	No	Integer	Specifies the cooldown period (in seconds). The value ranges from 0 to 86400.

Table 5-90 scheduled_policy field description

Parameter	Mandatory	Туре	Description
launch_time	Yes	String	Specifies the time when the scaling action is triggered. The time format complies with UTC.
			 If scaling_policy_type is set to SCHEDULED, the time format is YYYY-MM-DDThh:mmZ.
			 If scaling_policy_type is set to RECURRENCE, the time format is hh:mm.
recurrence_typ e	No	String	Specifies the periodic triggering type. This parameter is mandatory when scaling_policy_type is set to RECURRENCE .
			Daily: indicates that the scaling action is triggered once a day.
			Weekly: indicates that the scaling action is triggered once a week.
			Monthly: indicates that the scaling action is triggered once a month.

Parameter	Mandatory	Туре	Description
recurrence_val ue	No	String	Specifies the day when a periodic scaling action is triggered. This parameter is mandatory when scaling_policy_type is set to RECURRENCE.
			If recurrence_type is set to Daily, the value is null, indicating that the scaling action is triggered once a day.
			 If recurrence_type is set to Weekly, the value ranges from 1 (Sunday) to 7 (Saturday). The digits refer to dates in each week and separated by a comma, such as 1,3,5.
			 If recurrence_type is set to Monthly, the value ranges from 1 to 31. The digits refer to the dates in each month and separated by a comma, such as 1,10,13,28.
start_time	No	String	Specifies the start time of the scaling action triggered periodically. The time format complies with UTC.
			The time format is YYYY-MM-DDThh:mmZ.
end_time	No	String	Specifies the end time of the scaling action triggered periodically. The time format complies with UTC. This parameter is mandatory when scaling_policy_type is set to RECURRENCE.
			When the scaling action is triggered periodically, the end time cannot be earlier than the current and start time.
			The time format is YYYY-MM-DDThh:mmZ.

Table 5-91 scaling_policy_action field description

Parameter	Mandatory	Туре	Description
operation	No	String	Specifies the operation to be performed. The default operation is ADD .
			ADD: adds specified number of instances to the AS group.
			REMOVE/REDUCE: removes or reduces specified number of instances from the AS group.
			SET: sets the number of instances in the AS group.
instance_numb er	No	Integer	Specifies the number of instances to be operated. The default number is 1. The value range is as follows for a default quota:
			If operation is set to SET, the value ranges from 0 to 300.
			If operation is set to ADD, REMOVE, or REDUCE, the value ranges from 1 to 300.
			NOTE Either instance_number or instance_percentage is required.
instance_perce ntage	No	Integer	Specifies the percentage of instances to be operated. You can increase, decrease, or set the number of instances in an AS group to the specified percentage of the current number of instances. If operation is set to ADD, REMOVE or REDUCE, the value is an integer from 1 to 20000. If operation is set to SET, the value is an integer from 0 to 20000.
			If neither instance_number nor instance_percentage is specified, the number of instances to be operated is 1.
			Either instance_number or instance_percentage is required.

This example modifies the periodic AS policy with ID **0h327883-324n-4dzd-9c61-68d03ee191dd** for an AS group with two instances. The modification is as follows: The AS policy name is changed to **policy_01**, and

the policy is executed at 16:00 every day from 2016-01-08T17:31Z to 2016-02-08T17:31Z.

```
PUT https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_policy/
0h327883-324n-4dzd-9c61-68d03ee191dd

{
    "scaling_policy_type": "RECURRENCE",
    "scaling_policy_name": "policy_01",
    "scheduled_policy": {
        "launch_time": "16:00",
        "recurrence_type": "Daily",
        "end_time": "2016-02-08T17:31Z",
        "start_time": "2016-01-08T17:31Z"
},
    "scaling_policy_action": {
        "operation": "SET",
        "instance_number": 2
}
```

Response

Parameter	Туре	Description
scaling_policy_id	String	Specifies the AS policy ID.

Example Response

```
{
    "scaling_policy_id": "0h327883-324n-4dzd-9c61-68d03ee191dd"
}
```

- Normal200
- Abnormal

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

Returned Value	Description		
408 Request Timeout	The request timed out.		
409 Conflict	The request could not be processed due to a conflict.		
500 Internal Server Error	Failed to complete the request because of an internal service error.		
501 Not Implemented	Failed to complete the request because the server does not support the requested function.		
502 Bad Gateway	Failed to complete the request because the request is invalid.		
503 Service Unavailable	Failed to complete the request because the system is unavailable.		
504 Gateway Timeout	A gateway timeout error occurred.		

See Error Codes.

5.4.4 Modifying an AS Policy (V2)

Function

This API is used to modify a specified AS policy.

The difference between the V2 and V1 APIs for modifying an AS policy is that V2 supports modifying a scaling resource type.

URI

PUT /autoscaling-api/v2/{project_id}/scaling_policy/{scaling_policy_id}

Table 5-92 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_policy_ id	Yes	String	Specifies an AS policy ID. For details, see Querying AS Policies Bound to a Scaling Resource (V2).

Request

Table 5-93 Request parameters

Parameter	Mandatory	Туре	Description
scaling_policy_ name	No	String	Specifies the AS policy name. The name contains only letters, digits, underscores (_), and hyphens (-), and cannot exceed 64 characters.
scaling_policy_type	No	String	 ALARM (corresponding to alarm_id): indicates that the scaling action is triggered by an alarm. SCHEDULED (corresponding to scheduled_policy): indicates that the scaling action is triggered as scheduled. RECURRENCE (corresponding to scheduled_policy): indicates that the scaling action is triggered periodically. INTERVAL_ALARM (corresponding to alarm_id): indicates that the scaling action is triggered by a refined scaling policy.
scaling_resourc e_id	No	String	Specifies the scaling resource ID, which is the ID of a unique AS group or bandwidth.
scaling_resourc e_type	No	String	 Specifies the scaling resource type. AS group: SCALING_GROUP Bandwidth: BANDWIDTH

Parameter	Mandatory	Туре	Description
alarm_id	No	String	Specifies the alarm rule ID. This parameter is mandatory when scaling_policy_type is set to ALARM. After this parameter is specified, the value of scheduled_policy does not take effect.
			After you modify an alarm policy, the system automatically adds an alarm triggering activity of the autoscaling type to the alarm_actions field in the alarm rule specified by the parameter value.
			You can obtain the parameter value by querying Cloud Eye alarm rules. For details, see Querying Alarm Rules in <i>Cloud Eye API Reference</i> .
scheduled_poli cy	No	schedul ed_polic y object	Specifies the periodic or scheduled AS policy. This parameter is mandatory when scaling_policy_type is set to SCHEDULED or RECURRENCE. After this parameter is specified, the value of alarm_id does not take effect. For details, see Table 5-94.
scaling_policy_ action	No	scaling_ policy_a ction object	Specifies the scaling action of the AS policy. For details, see Table 5-95.
cool_down_tim e	No	Integer	Specifies the cooldown period (in seconds). The value ranges from 0 to 86400.
description	No	String	Specifies the description of the AS policy. The value can contain 1 to 256 characters.

Table 5-94 scheduled_policy field description

Parameter	Mandatory	Туре	Description
launch_time	Yes	String	Specifies the time when the scaling action is triggered. The time format complies with UTC.
			If scaling_policy_type is set to SCHEDULED, the time format is YYYY-MM-DDThh:mmZ.
			If scaling_policy_type is set to RECURRENCE, the time format is hh:mm.
recurrence_typ e	No	String	Specifies the periodic triggering type. This parameter is mandatory when scaling_policy_type is set to RECURRENCE .
			Daily: indicates that the scaling action is triggered once a day.
			Weekly: indicates that the scaling action is triggered once a week.
			Monthly: indicates that the scaling action is triggered once a month.
recurrence_val ue	No	String	Specifies the day when a periodic scaling action is triggered. This parameter is mandatory when scaling_policy_type is set to RECURRENCE.
			If recurrence_type is set to Daily, the value is null, indicating that the scaling action is triggered once a day.
			If recurrence_type is set to Weekly, the value ranges from 1 (Sunday) to 7 (Saturday). The digits refer to dates in each week and separated by a comma, such as 1,3,5.
			If recurrence_type is set to Monthly, the value ranges from 1 to 31. The digits refer to the dates in each month and separated by a comma, such as 1,10,13,28.

Parameter	Mandatory	Туре	Description
start_time	No	String	Specifies the start time of the scaling action triggered periodically. The time format complies with UTC. The time format is YYYY-MM-DDThh:mmZ.
end_time	No	String	Specifies the end time of the scaling action triggered periodically. The time format complies with UTC. This parameter is mandatory when scaling_policy_type is set to RECURRENCE.
			When the scaling action is triggered periodically, the end time cannot be earlier than the current and start time.
			The time format is YYYY-MM-DDThh:mmZ.

Table 5-95 scaling_policy_action field description

Parameter	Mandatory	Туре	Description
operation	No	String	Specifies the operation to be performed. The default operation is ADD .
			 If scaling_resource_type is set to SCALING_GROUP, the following operations are supported:
			 ADD: indicates adding instances.
			 REMOVE/REDUCE: indicates removing or reducing instances.
			 SET: indicates setting the number of instances to a specified value.
			If scaling_resource_type is set to BANDWIDTH, the following operations are supported:
			 ADD: indicates adding instances.
			 REDUCE: indicates reducing instances.
			 SET: indicates setting the number of instances to a specified value.
size	No	Integer	Specifies the operation size. The value is an integer from 0 to 300. The default value is 1. This parameter can be set to 0 only when operation is set to SET .
			• If scaling_resource_type is set to SCALING_GROUP, this parameter indicates the number of instances. The value is an integer from 0 to 300 and the default value is 1.
			• If scaling_resource_type is set to BANDWIDTH, this parameter indicates the bandwidth (Mbit/s). The value is an integer from 1 to 300 and the default value is 1.
			If scaling_resource_type is set to SCALING_GROUP, either size or percentage can be set.

Parameter	Mandatory	Туре	Description
percentage	No	Integer	Specifies the percentage of instances to be operated. If operation is set to ADD , REMOVE , or REDUCE , the value of this parameter is an integer from 1 to 20000. If operation is set to SET , the value is an integer from 0 to 20000.
			 If scaling_resource_type is set to SCALING_GROUP, either size or percentage can be set. If neither size nor percentage is set, the default value of size is 1.
			 If scaling_resource_type is set to BANDWIDTH, percentage is unavailable.
limits	No	Integer	Specifies the operation restrictions.
			If scaling_resource_type is set to BANDWIDTH and operation is not SET, this parameter takes effect and the unit is Mbit/s.
			If operation is set to ADD, this parameter indicates the maximum bandwidth allowed.
			If operation is set to REDUCE, this parameter indicates the minimum bandwidth allowed.

This example modifies an AS policy with ID

0h327883-324n-4dzd-9c61-68d03ee191dd. The AS policy name is changed to **hth_aspolicy_1**, the alarm rule ID is changed to **al1513822380493GvUKZwA8**, the cooldown period is changed to 900 seconds, and the scaling action is changed to increase the bandwidth by 1 Mbit/s until the bandwidth reaches 10 Mbit/s.

```
PUT https://{Endpoint}/autoscaling-api/v2/{project_id}/scaling_policy/
0h327883-324n-4dzd-9c61-68d03ee191dd

{
    "alarm_id": "al1513822380493GvUKZwA8",
    "cool_down_time": 900,
    "scaling_policy_action": {
        "size": 1,
        "operation": "ADD",
        "limits": 10
    },
    "scaling_policy_name": "hth_aspolicy_1",
```

```
"scaling_policy_type": "ALARM"
```

Table 5-96 Response parameters

Parameter	Туре	Description
scaling_policy_id	String	Specifies the AS policy ID.

Example Response

```
{
    "scaling_policy_id": "0h327883-324n-4dzd-9c61-68d03ee191dd"
}
```

- Normal200
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.

Returned Value	Description
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See Error Codes.

5.4.5 Querying AS Policies Bound to an AS Group

Function

This API is used to query AS policies based on search criteria. The results are displayed by page.

- Search criteria can be the AS policy name, policy type, policy ID, start line number, and number of records.
- If no search criteria are specified, a maximum of 20 AS policies for a specified AS group can be queried for a tenant by default.

URI

GET /autoscaling-api/v1/{project_id}/scaling_policy/{scaling_group_id}/list

You can type the question mark (?) and ampersand (&) at the end of the URI to define multiple search criteria. AS policies can be searched by all optional parameters in the following table. For details, see the example request.

Table 5-97 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_group_id	Yes	String	Specifies the AS group ID.
scaling_policy_name	No	String	Specifies the AS policy name. Supports fuzzy search.

Parameter	Mandatory	Туре	Description
scaling_policy_type	No	String	 Specifies the AS policy type. ALARM: alarm policy SCHEDULED: scheduled policy RECURRENCE: periodic policy
scaling_policy_id	No	String	Specifies the AS policy ID.
start_number	No	Integer	Specifies the start line number. The default value is 0 . The minimum parameter value is 0 .
limit	No	Integer	Specifies the number of query records. The default value is 20 . The value ranges from 0 to 100.

Request

None

Example Request

This example queries scheduled AS policies named **as-policy-test** of the AS group with ID **e5d27f5c-dd76-4a61-b4bc-a67c5686719a**.

GET https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_policy/e5d27f5c-dd76-4a61-b4bc-a67c5686719a/list?scaling_policy_name=as-policy-test&scaling_policy_type=SCHEDULED

Response

Table 5-98 Response parameters

Parameter	Туре	Description
total_number	Integer	Specifies the total number of query records.
start_number	Integer	Specifies the start line number.
limit	Integer	Specifies the maximum number of resources to be queried.
scaling_policies	Array of scaling_policies objects	Specifies scaling policies. For details, see Table 5-99 .

Table 5-99 scaling_policies field description

Parameter	Туре	Description
scaling_group_id	String	Specifies the AS group ID.
scaling_policy_nam e	String	Specifies the AS policy name.
scaling_policy_id	String	Specifies the AS policy ID.
policy_status	String	 Specifies the AS policy status. INSERVICE: The AS policy is enabled. PAUSED: The AS policy is disabled. EXECUTING: The AS policy is being executed.
scaling_policy_type	String	 ALARM: indicates that the scaling action is triggered by an alarm. A value is returned for alarm_id, and no value is returned for scheduled_policy. SCHEDULED: indicates that the scaling action is triggered as scheduled. A value is returned for scheduled_policy, and no value is returned for alarm_id, recurrence_type, recurrence_value, start_time, or end_time. RECURRENCE: indicates that the scaling action is triggered periodically. Values are returned for scheduled_policy, recurrence_type, recurrence_value, start_time, and end_time, and no value is returned for alarm_id.
alarm_id	String	Specifies the alarm ID.
scheduled_policy	scheduled_ policy object	Specifies the periodic or scheduled AS policy. For details, see Table 5-100 .
scaling_policy_actio n	scaling_poli cy_action object	Specifies the scaling action of the AS policy. For details, see Table 5-101 .
cool_down_time	Integer	Specifies the cooldown period (s).
create_time	String	Specifies the time when an AS policy was created. The time format complies with UTC.

Table 5-100 scheduled_policy field description

Parameter	Туре	Description
launch_time	String	Specifies the time when the scaling action is triggered. The time format complies with UTC. • If scaling_policy_type is set to
		SCHEDULED, the time format is YYYY-MM-DDThh:mmZ.
		 If scaling_policy_type is set to RECURRENCE, the time format is hh:mm.
recurrence_type	String	Specifies the type of a periodically triggered scaling action.
		Daily: indicates that the scaling action is triggered once a day.
		Weekly: indicates that the scaling action is triggered once a week.
		Monthly: indicates that the scaling action is triggered once a month.
recurrence_value	String	Specifies the frequency at which scaling actions are triggered.
		 If recurrence_type is set to Daily, the value is null, indicating that the scaling action is triggered once a day.
		 If recurrence_type is set to Weekly, the value ranges from 1 (Sunday) to 7 (Saturday). The digits refer to dates in each week and separated by a comma, such as 1,3,5.
		 If recurrence_type is set to Monthly, the value ranges from 1 to 31. The digits refer to the dates in each month and separated by a comma, such as 1,10,13,28.
start_time	String	Specifies the start time of the scaling action triggered periodically. The time format complies with UTC.
		The time format is YYYY-MM-DDThh:mmZ.
end_time	String	Specifies the end time of the scaling action triggered periodically. The time format complies with UTC.
		The time format is YYYY-MM-DDThh:mmZ.

Table 5-101 scaling_policy_action field description

Parameter	Туре	Description
operation	String	Specifies the scaling action.
		ADD: adds specified number of instances to the AS group.
		REMOVE: removes specified number of instances from the AS group.
		SET: sets the number of instances in the AS group.
instance_number	Integer	Specifies the number of instances to be operated.
instance_percentag e	Integer	Specifies the percentage of instances to be operated.

Example Response

```
{
  "limit": 20,
  "total_number": 1,
  "start_number": 0,
  "scaling_policies": [
      {
            "scaling_policy_id": "fd7d63ce-8f5c-443e-b9a0-bef9386b23b3",
            "scaling_group_id": "e5d27f5c-dd76-4a61-b4bc-a67c5686719a",
            "scaling_policy_name": "as-policy-test",
            "scaling_policy_type": "SCHEDULED",
            "scheduled_policy": {
                 "launch_time": "2015-07-24T01:21Z"
            },
            "cool_down_time": 300,
            "scaling_policy_action": {
                  "operation": "REMOVE",
                  "instance_number": 1
            },
            "policy_status": "INSERVICE",
            "create_time": "2015-07-24T01:09:30Z"
        }
    }
}
```

- Normal200
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.

Returned Value	Description
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See Error Codes.

5.4.6 Querying AS Policies Bound to a Scaling Resource (V2)

Function

This API is used to query AS policies based on search criteria. The results are displayed by page.

- The difference between the V2 and V1 APIs for querying AS policies is that V2 contains scaling resource types in response messages.
- Search criteria can be the AS policy name, policy type, policy ID, start line number, and number of records.
- If no search criteria are specified, a maximum of 20 AS policies for specified resources can be gueried for a tenant by default.

URI

GET /autoscaling-api/v2/{project_id}/scaling_policy/{scaling_resource_id}/list

□ NOTE

You can type the question mark (?) and ampersand (&) at the end of the URI to define multiple search criteria. AS policies can be searched by all optional parameters in the following table. For details, see the example request.

Table 5-102 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_resou rce_id	Yes	String	Specifies the scaling resource ID.
scaling_polic y_name	No	String	Specifies the AS policy name. Supports fuzzy search.
scaling_polic y_type	No	String	 Specifies the AS policy type. ALARM: alarm policy SCHEDULED: scheduled policy RECURRENCE: periodic policy INTERVAL_ALARM (corresponding to alarm_id): indicates that the scaling action is triggered by a refined scaling policy.
scaling_polic y_id	No	String	Specifies the AS policy ID.
start_numbe r	No	Integer	Specifies the start line number. The default value is 0 . The minimum parameter value is 0 .
limit	No	Integer	Specifies the number of query records. The default value is 20 . The value range is 0 to 100.

Request

None

Example Request

This example shows how to query all periodic AS policies for the resource with ID **8ade64b5-d685-40b8-8582-4ce306ea37a6**.

GET https://{Endpoint}/autoscaling-api/v2/{project_id}/scaling_policy/8ade64b5-d685-40b8-8582-4ce306ea37a6/list?scaling_policy_type=RECURRENCE

Table 5-103 Response parameters

Parameter	Туре	Description
total_number	Integer	Specifies the total number of query records.
start_number	Integer	Specifies the start line number.
limit	Integer	Specifies the maximum number of resources to be queried.
scaling_policies	Array of scaling_policies objects	Specifies AS policies. For details, see Table 5-104 .

Table 5-104 scaling_policies field description

Parameter	Туре	Description
scaling_policy_nam e	String	Specifies the AS policy name. Supports fuzzy search.
scaling_policy_id	String	Specifies the AS policy ID.
scaling_resource_id	String	Specifies the scaling resource ID.
scaling_resource_ty pe	String	Specifies the scaling resource type. • AS group: SCALING_GROUP • Bandwidth: BANDWIDTH
policy_status	String	 Specifies the AS policy status. INSERVICE: The AS policy is enabled. PAUSED: The AS policy is disabled. EXECUTING: The AS policy is being executed.

Parameter	Туре	Description
scaling_policy_type	String	 Specifies the AS policy type. ALARM: indicates that the scaling action is triggered by an alarm. A value is returned for alarm_id, and no value is returned for scheduled_policy. SCHEDULED: indicates that the scaling action is triggered as scheduled. A value is returned for scheduled_policy, and no value is returned for alarm_id, recurrence_type, recurrence_value, start_time, or end_time. RECURRENCE: indicates that the scaling action is triggered periodically. Values are returned for scheduled_policy, recurrence_type, recurrence_value, start_time, and end_time, and no value is returned for alarm_id. INTERVAL_ALARM: indicates that the scaling action is triggered by a refined scaling policy. A value is returned for alarm_id, and no value is returned for scheduled_policy.
alarm_id	String	Specifies the alarm ID.
scheduled_policy	scheduled_p olicy object	Specifies the periodic or scheduled AS policy. For details, see Table 5-105 .
scaling_policy_actio n	scaling_poli cy_action object	Specifies the scaling action of the AS policy. For details, see Table 5-106 .
cool_down_time	Integer	Specifies the cooldown period (s).
create_time	String	Specifies the time when an AS policy was created. The time format complies with UTC.
meta_data	meta_data object	Provides additional information. For details, see Table 5-107 .
description	String	Specifies the AS policy description.

Table 5-105 scheduled_policy field description

Parameter	Туре	Description
launch_time	String	Specifies the time when the scaling action is triggered. The time format complies with UTC.
		 If scaling_policy_type is set to SCHEDULED, the time format is YYYY- MM-DDThh:mmZ.
		If scaling_policy_type is set to RECURRENCE, the time format is hh:mm.
recurrence_type	String	Specifies the type of a periodically triggered scaling action.
		Daily: indicates that the scaling action is triggered once a day.
		Weekly: indicates that the scaling action is triggered once a week.
		Monthly: indicates that the scaling action is triggered once a month.
recurrence_value	String	Specifies the frequency at which scaling actions are triggered.
		If recurrence_type is set to Daily, the value is null, indicating that the scaling action is triggered once a day.
		 If recurrence_type is set to Weekly, the value ranges from 1 (Sunday) to 7 (Saturday). The digits refer to dates in each week and separated by a comma, such as 1,3,5.
		 If recurrence_type is set to Monthly, the value ranges from 1 to 31. The digits refer to the dates in each month and separated by a comma, such as 1,10,13,28.
start_time	String	Specifies the start time of the scaling action triggered periodically. The time format complies with UTC.
		The time format is YYYY-MM-DDThh:mmZ.
end_time	String	Specifies the end time of the scaling action triggered periodically. The time format complies with UTC.
		The time format is YYYY-MM-DDThh:mmZ.

Table 5-106 scaling_policy_action field description

Parameter	Туре	Description
operation	String	Specifies the scaling action.
		ADD: indicates adding instances.
		REDUCE: indicates reducing instances.
		SET: indicates setting the number of instances to a specified value.
size	Integer	Specifies the number of instances to be operated.
percentage	Integer	Specifies the percentage of instances to be operated.
limits	Integer	Specifies the operation restrictions.

Table 5-107 meta_data field description

Parameter	Туре	Description
metadata_bandw idth_share_type	String	Specifies the bandwidth sharing type in the bandwidth scaling policy.
metadata_eip_id	String	Specifies the EIP ID for the bandwidth in the bandwidth scaling policy.
metadata_eip_ad dress	String	Specifies the EIP for the bandwidth in the bandwidth scaling policy.

Example Response

```
{
       "scaling_policy_id": "535fd67e-276b-409c-879e-52f4e09e14bb",
       "scaling_policy_name": "as-policy-7a75",
"scaling_resource_id": "8ade64b5-d685-40b8-8582-4ce306ea37a6",
       "scaling_resource_type": "SCALING_GROUP",
"scaling_policy_type": "RECURRENCE",
       "scheduled_policy": {
    "launch_time": "21:30",
          "recurrence_type": "Daily",
          "start_time": "2017-08-27T21:08Z",
"end_time": "2017-08-31T21:08Z"
       "cool_down_time": 900,
       "scaling_policy_action": {
    "operation": "ADD",
          "size": 1
       "policy_status": "INSERVICE",
       "create_time": "2017-08-31T07:35:05Z"
       "scaling_policy_id": "37df92f8-73cb-469e-a420-c15f445d2ee1",
       "scaling_policy_name": "as-policy-7a75",
       "scaling_resource_id": "8ade64b5-d685-40b8-8582-4ce306ea37a6",
       "scaling_resource_type": "SCALING_GROUP",
       "scaling_policy_type": "RECURRENCE",
       "scheduled_policy": {
    "launch_time": "22:30",
          "recurrence_type": "Daily",
"start_time": "2017-08-27T22:08Z",
           "end_time": "2017-08-31T22:08Z"
       "cool_down_time": 900,
       "scaling_policy_action": {
    "operation": "ADD",
           "size": 1
       ,,
"policy_status": "INSERVICE",
"create_time": "2017-08-31T07:41:06Z"
]
```

Normal200

Abnormal

Returned Values	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.

Returned Values	Description
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

Error Codes

See Error Codes.

5.4.7 Querying AS Policies (V2)

Function

This API is used to query all AS policies for a tenant based on search criteria. The results are displayed by page.

- Search criteria can be the AS resource ID, AS resource type, AS policy name, AS policy ID, alarm ID, enterprise project ID, start line number, number of records, and sorting method.
- If no search criteria are specified, a maximum of 20 AS policies can be queried for a tenant by default.

MOTE

The bandwidth scaling policy configured for a released EIP still occupies the quota of bandwidth scaling policy. The policy is only visible to the Huawei Cloud account and its IAM users with the global permissions.

URI

GET /autoscaling-api/v2/{project_id}/scaling_policy

◯ NOTE

You can type the question mark (?) and ampersand (&) at the end of the URI to define multiple search criteria. AS policies can be searched by all optional parameters in the following table. For details, see the example request.

Table 5-108 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_resour ce_id	No	String	Specifies the scaling resource ID.
scaling_resour ce_type	No	String	 Specifies the scaling resource type. AS group: SCALING_GROUP Bandwidth: BANDWIDTH
scaling_policy _name	No	String	Specifies the AS policy name. Supports fuzzy search.
scaling_policy _id	No	String	Specifies the AS policy ID.
scaling_policy _type	No	String	 Specifies the AS policy type. ALARM: alarm policy SCHEDULED: scheduled policy RECURRENCE: periodic policy INTERVAL_ALARM (corresponding to alarm_id): indicates that the scaling action is triggered by a refined scaling policy.
start_number	No	Integer	Specifies the start line number. The default value is 0 . The minimum parameter value is 0 .
limit	No	Integer	Specifies the number of query records. The default value is 20 . The value ranges from 0 to 100.

Parameter	Mandatory	Туре	Description
sort_by	No	String	 POLICY_NAME: AS policies are sorted by name. TRIGGER_CONDITION: AS policies are sorted by trigger condition. For example, in ascending order, alarm policies are first, and others are sorted in ascending order based on the latest triggering time. CREATE_TIME: AS policies are sorted based on the creation time.
order	No	String	Specifies the sorting order.ASC: ascending orderDESC: descending order

Parameter	Mandatory	Туре	Description
enterprise_pro ject_id	No	String	Specifies the enterprise project ID. If scaling_resource_type is set to SCALING_GROUP and all_granted_eps is transferred: When you use an account on Huawei Cloud or its IAM user with global permissions,
			this API will query scaling policies of the AS groups in all enterprise projects.
			 When you use an IAM user with permissions to specific enterprise projects, this API will query scaling policies of the AS groups in these enterprise projects.
			NOTE If the IAM user has permissions to more than 100 enterprise projects, this API will query only the AS policies of AS groups in the first 100 enterprise projects.
			 If scaling_resource_type is set to BANDWIDTH and all_granted_eps is transferred:
			 When you use an account on Huawei Cloud or its IAM user with global permissions, this API will query scaling policies of the bandwidths in all enterprise projects.
			 When you use an IAM user with permissions to specific enterprise projects, this API will query the scaling policies of bandwidths in the enterprise projects specified by all_granted_eps. For details, see Querying Bandwidths in Elastic IP API Reference.
			 If scaling_resource_type is not specified and all_granted_eps is transferred:
			 When you use an account on Huawei Cloud or its IAM user with global permissions,

Parameter	Mandatory	Туре	Description
			this API will query scaling policies of the AS groups and bandwidths in all enterprise projects.
			 When you use an IAM user with permissions to specific enterprise projects, this API will query the scaling policies of AS groups and bandwidths in the enterprise projects.
			If the IAM user has permissions to more than 100 enterprise projects, this API will only query the scaling policies of AS groups in the first 100 enterprise projects, as well as the scaling policies of bandwidths in the enterprise projects specified by all_granted_eps. For details, see Querying Bandwidths.
alarm_id	No	String	Specifies the alarm rule ID.

Request

None

Example Request

This example queries all periodic AS policies for the resource with ID **8ade64b5-d685-40b8-8582-4ce306ea37a6**.

GET https://{Endpoint}/autoscaling-api/v2/{project_id}/scaling_policy?scaling_resource_id=8ade64b5-d685-40b8-8582-4ce306ea37a6&scaling_policy_type=RECURRENCE

Response

Table 5-109 Response parameters

Parameter	Туре	Description
total_number	Integer	Specifies the total number of query records.
start_number	Integer	Specifies the start line number.
limit	Integer	Specifies the maximum number of resources to be queried.

Parameter	Туре	Description
scaling_policies	Array of scaling_po licies objects	Specifies AS policies. For details, see Table 5-110 .

Table 5-110 scaling_policies field description

Parameter	Туре	Description
scaling_policy_n ame	String	Specifies the AS policy name.
scaling_policy_i d	String	Specifies the AS policy ID.
scaling_resourc e_id	String	Specifies the scaling resource ID.
scaling_resourc e_type	String	 Specifies the scaling resource type. AS group: SCALING_GROUP Bandwidth: BANDWIDTH
policy_status	String	 Specifies the AS policy status. INSERVICE: The AS policy is enabled. PAUSED: The AS policy is disabled. EXECUTING: The AS policy is being executed.
scaling_policy_t ype	String	 ALARM: indicates that the scaling action is triggered by an alarm. A value is returned for alarm_id, and no value is returned for scheduled_policy. SCHEDULED: indicates that the scaling action is triggered as scheduled. A value is returned for scheduled_policy, and no value is returned for alarm_id, recurrence_type, recurrence_value, start_time, or end_time. RECURRENCE: indicates that the scaling action is triggered periodically. Values are returned for scheduled_policy, recurrence_type, recurrence_value, start_time, and end_time, and no value is returned for alarm_id. INTERVAL_ALARM: indicates that the scaling action is triggered by a refined scaling policy. A value is returned for alarm_id, and no value is returned for scheduled_policy.

Parameter	Туре	Description
alarm_id	String	Specifies the alarm ID.
scheduled_polic y	scheduled _policy object	Specifies the periodic or scheduled AS policy. For details, see Table 5-111 .
scaling_policy_a ction	scaling_po licy_action object	Specifies the scaling action of the AS policy. For details, see Table 5-112 .
cool_down_tim e	Integer	Specifies the cooldown period (s).
create_time	String	Specifies the time when an AS policy was created. The time format complies with UTC.
meta_data	meta_data object	Provides additional information. For details, see Table 5-113 .
description	String	Specifies the AS policy description.

Table 5-111 scheduled_policy field description

Parameter	Туре	Description	
launch_time	String	 Specifies the time when the scaling action is triggered. The time format complies with UTC. If scaling_policy_type is set to SCHEDULED, the time format is YYYY-MM-DDThh:mmZ. If scaling_policy_type is set to RECURRENCE, the time format is hh:mm. 	
recurrence_type	String	Specifies the type of a periodically triggered scaling action.	
		Daily: indicates that the scaling action is triggered once a day.	
		Weekly: indicates that the scaling action is triggered once a week.	
		Monthly: indicates that the scaling action is triggered once a month.	

Parameter	Туре	Description
recurrence_valu e	String	Specifies the frequency at which scaling actions are triggered.
		• If recurrence_type is set to Daily, the value is null, indicating that the scaling action is triggered once a day.
		 If recurrence_type is set to Weekly, the value ranges from 1 (Sunday) to 7 (Saturday). The digits refer to dates in each week and separated by a comma, such as 1,3,5.
		 If recurrence_type is set to Monthly, the value ranges from 1 to 31. The digits refer to the dates in each month and separated by a comma, such as 1,10,13,28.
start_time	String	Specifies the start time of the scaling action triggered periodically. The time format complies with UTC.
		The time format is YYYY-MM-DDThh:mmZ.
end_time	String	Specifies the end time of the scaling action triggered periodically. The time format complies with UTC.
		The time format is YYYY-MM-DDThh:mmZ.

Table 5-112 scaling_policy_action field description

Parameter	Туре	Description	
operation	String	Specifies the scaling action.	
		ADD: indicates adding instances.	
		REDUCE: indicates reducing instances.	
		SET: indicates setting the number of instances to a specified value.	
size	Integer	Specifies the number of instances to be operated.	
percentage	Integer	Specifies the percentage of instances to be operated.	
limits	Integer	Specifies the operation restrictions.	

Table 5-113 meta_data field description

Parameter	Туре	Description
metadata_band width_share_typ e	String	Specifies the bandwidth sharing type in the bandwidth scaling policy.
metadata_eip_i d	String	Specifies the EIP ID for the bandwidth in the bandwidth scaling policy.
metadata_eip_a ddress	String	Specifies the EIP for the bandwidth in the bandwidth scaling policy.

Example Response

```
"limit": 20,
   "total_number": 3,
   "start_number": 0,
   "scaling_policies": [
         "scaling_policy_id": "803a35a5-38fb-4d27-a042-496c14bc1fb8",
         "scaling_policy_name": "as-policy-7a75",
"scaling_resource_id": "8ade64b5-d685-40b8-8582-4ce306ea37a6",
"scaling_resource_type": "SCALING_GROUP",
         "scaling_policy_type": "RECURRENCE",
         "scheduled_policy": {
             "launch_time": "03:30",
            "recurrence_type": "Daily",
"start_time": "2017-08-28T03:08Z",
"end_time": "2017-09-01T03:08Z"
          "cool_down_time": 900,
         "scaling_policy_action": {
             "operation": "ADD",
             "size": 1
         "policy_status": "INSERVICE",
         "create_time": "2017-08-31T03:02:41Z"
         "scaling_policy_id": "535fd67e-276b-409c-879e-52f4e09e14bb",
         "scaling_policy_name": "as-policy-7a75",
"scaling_resource_id": "8ade64b5-d685-40b8-8582-4ce306ea37a6",
         "scaling_resource_type": "SCALING_GROUP",
         "scaling_policy_type": "RECURRENCE",
         "scheduled_policy": {
    "launch_time": "21:30",
             "recurrence_type": "Daily",
             "start_time": "2017-08-27T21:08Z",
"end_time": "2017-08-31T21:08Z"
         "cool_down_time": 900,
         "scaling_policy_action": {
    "operation": "ADD",
             "size": 1
         "policy_status": "INSERVICE",
         "create_time": "2017-08-31T07:35:05Z",
"meta_data": {
             "metadata_eip_id": "263f0886-de6a-4e21-ad83-814ca9f3844e",
             "metadata_eip_address": "255.255.255.255"
         }
      },
```

```
{
    "scaling_policy_id": "37df92f8-73cb-469e-a420-c15f445d2ee1",
    "scaling_policy_name": "as-policy-7a75",
    "scaling_resource_id": "8ade64b5-d685-40b8-8582-4ce306ea37a6",
    "scaling_resource_type": "SCALING_GROUP",
    "scaling_policy_type": "RECURRENCE",
    "scheduled_policy": {
        "launch_time": "22:30",
        "recurrence_type": "Daily",
        "start_time": "2017-08-27T22:08Z",
        "end_time": "2017-08-31T22:08Z"
    },
    "cool_down_time": 900,
    "scaling_policy_action": {
        "operation": "ADD",
        "size": 1
    },
    "policy_status": "INSERVICE",
    "create_time": "2017-08-31T07:41:06Z",

"meta_data": {
        "metadata_eip_id": "263f0886-de6a-4e21-ad83-814ca9f3844e",
        "metadata_eip_address": "255.255.255.255"
    }
}
```

- Normal200
- Abnormal

Returned Values	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.

Returned Values	Description
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

Error Codes

See Error Codes.

5.4.8 Querying an AS Policy

Function

This API is used to query details about a specified AS policy by policy ID.

URI

GET /autoscaling-api/v1/{project_id}/scaling_policy/{scaling_policy_id}

Table 5-114 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_policy_i d	Yes	String	Specifies the AS policy ID.

Request

None

Example Request

This example queries the details about the AS policy with ID **fd7d63ce-8f5c-443e-b9a0-bef9386b23b3**.

Response

Table 5-115 Response parameters

Parameter	Туре	Description
scaling_policy	scaling_polic y object	Specifies details about the AS policy. For details, see Table 5-116 .

Table 5-116 scaling_policy field description

Parameter	Туре	Description
scaling_group_id	String	Specifies the AS group ID.
scaling_policy_nam e	String	Specifies the AS policy name. Supports fuzzy search.
scaling_policy_id	String	Specifies the AS policy ID.
policy_status	String	 Specifies the AS policy status. INSERVICE: The AS policy is enabled. PAUSED: The AS policy is disabled. EXECUTING: The AS policy is being executed.
scaling_policy_type	String	 ALARM: indicates that the scaling action is triggered by an alarm. A value is returned for alarm_id, and no value is returned for scheduled_policy. SCHEDULED: indicates that the scaling action is triggered as scheduled. A value is returned for scheduled_policy, and no value is returned for alarm_id, recurrence_type, recurrence_value, start_time, or end_time. RECURRENCE: indicates that the scaling action is triggered periodically. Values are returned for scheduled_policy, recurrence_type, recurrence_value, start_time, and end_time, and no value is returned for alarm_id.
alarm_id	String	Specifies the alarm ID.
scheduled_policy	scheduled_p olicy object	Specifies the periodic or scheduled AS policy. For details, see Table 5-117 .

Parameter	Туре	Description
scaling_policy_action	scaling_poli cy_action object	Specifies the scaling action of the AS policy. For details, see Table 5-118 .
cool_down_time	Integer	Specifies the cooldown period (s).
create_time	String	Specifies the time when an AS policy was created. The time format complies with UTC.

Table 5-117 scheduled_policy field description

Parameter	Туре	Description
launch_time	String	Specifies the time when the scaling action is triggered. The time format complies with UTC. • If scaling_policy_type is set to SCHEDULED, the time format is YYYY-MM-DDThh:mmZ. • If scaling_policy_type is set to RECURRENCE, the time format is hh:mm.
recurrence_type	String	 Specifies the type of a periodically triggered scaling action. Daily: indicates that the scaling action is triggered once a day. Weekly: indicates that the scaling action is triggered once a week. Monthly: indicates that the scaling action is triggered once a month.
recurrence_value	String	 Specifies the frequency at which scaling actions are triggered. If recurrence_type is set to Daily, the value is null, indicating that the scaling action is triggered once a day. If recurrence_type is set to Weekly, the value ranges from 1 (Sunday) to 7 (Saturday). The digits refer to dates in each week and separated by a comma, such as 1,3,5. If recurrence_type is set to Monthly, the value ranges from 1 to 31. The digits refer to the dates in each month and separated by a comma, such as 1,10,13,28.

Parameter	Туре	Description
start_time	String	Specifies the start time of the scaling action triggered periodically. The time format complies with UTC.
		The time format is YYYY-MM-DDThh:mmZ.
end_time	String	Specifies the end time of the scaling action triggered periodically. The time format complies with UTC.
		The time format is YYYY-MM-DDThh:mmZ.

Table 5-118 scaling_policy_action field description

Parameter	Туре	Description
operation	String	Specifies the scaling action.
		ADD: adds specified number of instances to the AS group.
		REMOVE: removes specified number of instances from the AS group.
		SET: sets the number of instances in the AS group.
instance_number	Integer	Specifies the number of instances to be operated.
instance_percentag e	Integer	Specifies the percentage of instances to be operated.

Example Response

- Normal200
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

Error Codes

See **Error Codes**.

5.4.9 Querying an AS Policy (V2)

Function

This API is used to query details about a specified AS policy by policy ID.

The difference between the V2 and V1 APIs for querying details of an AS policy is that V2 contains scaling resource types in response messages.

URI

GET /autoscaling-api/v2/{project_id}/scaling_policy/{scaling_policy_id}

Table 5-119 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_policy_id	Yes	String	Specifies the AS policy ID.

Request

None

Example Request

This example queries the details about the AS policy with ID **906f73ff-56e8-41b2-a005-8157d0c60361**.

GET https://{Endpoint}/autoscaling-api/v2/{project_id}/scaling_policy/906f73ff-56e8-41b2-a005-8157d0c60361

Response

Table 5-120 Response parameters

Parameter	Туре	Description
scaling_policy	scaling_poli cy object	Specifies details about the AS policy. For details, see Table 5-121 .

Table 5-121 scaling_policy field description

Parameter	Туре	Description
scaling_resource_id	String	Specifies the scaling resource ID.

Parameter	Туре	Description
scaling_resource_ty pe	String	Specifies the scaling resource type. • AS group: SCALING_GROUP • Bandwidth: BANDWIDTH
scaling_policy_nam e	String	Specifies the AS policy name. Supports fuzzy search.
scaling_policy_id	String	Specifies the AS policy ID.
policy_status	String	 Specifies the AS policy status. INSERVICE: The AS policy is enabled. PAUSED: The AS policy is disabled. EXECUTING: The AS policy is being executed.
scaling_policy_type	String	 Specifies the AS policy type. ALARM: indicates that the scaling action is triggered by an alarm. A value is returned for alarm_id, and no value is returned for scheduled_policy. SCHEDULED: indicates that the scaling action is triggered as scheduled. A value is returned for scheduled_policy, and no value is returned for alarm_id, recurrence_type, recurrence_value,
		 start_time, or end_time. RECURRENCE: indicates that the scaling action is triggered periodically. Values are returned for scheduled_policy, recurrence_type, recurrence_value, start_time, and end_time, and no value is returned for alarm_id. INTERVAL_ALARM: indicates that the scaling action is triggered by a refined scaling policy. A value is returned for
		alarm_id, and no value is returned for scheduled_policy.
alarm_id	String	Specifies the alarm ID.
scheduled_policy	scheduled_p olicy object	Specifies the periodic or scheduled AS policy. For details, see Table 5-122 .
scaling_policy_actio n	scaling_poli cy_action object	Specifies the scaling action of the AS policy. For details, see Table 5-123 .
cool_down_time	Integer	Specifies the cooldown period (s).

Parameter	Туре	Description
create_time	String	Specifies the time when an AS policy was created. The time format complies with UTC.
meta_data	meta_data object	Provides additional information. For details, see Table 5-124 .
description	String	Specifies the AS policy description.

Table 5-122 scheduled_policy field description

Parameter	Туре	Description
launch_time	String	Specifies the time when the scaling action is triggered. The time format complies with UTC.
		If scaling_policy_type is set to SCHEDULED, the time format is YYYY- MM-DDThh:mmZ.
		 If scaling_policy_type is set to RECURRENCE, the time format is hh:mm.
recurrence_type	String	Specifies the type of a periodically triggered scaling action.
		Daily: indicates that the scaling action is triggered once a day.
		Weekly: indicates that the scaling action is triggered once a week.
		Monthly: indicates that the scaling action is triggered once a month.
recurrence_value	String	Specifies the frequency at which scaling actions are triggered.
		If recurrence_type is set to Daily, the value is null, indicating that the scaling action is triggered once a day.
		 If recurrence_type is set to Weekly, the value ranges from 1 (Sunday) to 7 (Saturday). The digits refer to dates in each week and separated by a comma, such as 1,3,5.
		 If recurrence_type is set to Monthly, the value ranges from 1 to 31. The digits refer to the dates in each month and separated by a comma, such as 1,10,13,28.

Parameter	Туре	Description
start_time	String	Specifies the start time of the scaling action triggered periodically. The time format complies with UTC.
		The time format is YYYY-MM-DDThh:mmZ.
end_time	String	Specifies the end time of the scaling action triggered periodically. The time format complies with UTC.
		The time format is YYYY-MM-DDThh:mmZ.

Table 5-123 scaling_policy_action field description

Parameter	Туре	Description
operation	String	Specifies the scaling action.
		ADD: indicates adding instances.
		REDUCE: indicates reducing instances.
		SET: indicates setting the number of instances to a specified value.
size	Integer	Specifies the operation size.
percentage	Integer	Specifies the percentage of instances to be operated.
limits	Integer	Specifies the operation restrictions.

Table 5-124 meta_data field description

Parameter	Туре	Description
metadata_bandwid th_share_type	String	Specifies the bandwidth sharing type in the bandwidth scaling policy.
metadata_eip_id	String	Specifies the EIP ID for the bandwidth in the bandwidth scaling policy.
metadata_eip_addr ess	String	Specifies the EIP for the bandwidth in the bandwidth scaling policy.

Example Response

{
 "scaling_policy": {

```
"scaling_policy_id": "906f73ff-56e8-41b2-a005-8157d0c60361",
    "scaling_policy_name": "hth_aspolicy_1",
    "scaling_resource_id": "8ade64b5-d685-40b8-8582-4ce306ea37a6",
    "scaling_resource_type": "BANDWIDTH",
    "scaling_policy_type": "ALARM",
    "alarm_id": "al1513822380493GvUKZwA8",
    "scheduled_policy": {
    },
    "cool_down_time": 900,
    "scaling_policy_action": {
        "operation": "ADD",
        "size": 1,
        "limits": 111
    },
    "policy_status": "INSERVICE",
    "create_time": "2018-03-21T08:03:35Z",
    "meta_data": {
        "metadata_eip_id": "263f0886-de6a-4e21-ad83-814ca9f3844e",
        "metadata_eip_address": "255.255.255.255"
    }
}
```

- Normal200
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.

Returned Value	Description
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

Error Codes

See Error Codes.

5.4.10 Executing, Enabling, or Disabling an AS Policy

Function

This interface is used to immediately execute, enable, or disable a specified AS policy.

An AS policy can be executed only when the AS group and AS policy are in the **INSERVICE** state. Otherwise, the execution fails.

URI

POST /autoscaling-api/v1/{project_id}/scaling_policy/{scaling_policy_id}/action

Table 5-125 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_policy_i d	Yes	String	Specifies the AS policy ID.

Request

Table 5-126 Request parameters

Parameter	Mandatory	Туре	Description
action	Yes	String	Specifies the operation for an AS policy.
			execute: immediately executes the AS policy.
			• resume: enables the AS group.
			• pause: disables the AS group.

Example Request

This example executes the AS policy with ID **906f73ff-56e8-41b2-a005-8157d0c60361**.

```
POST https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_policy/906f73ff-56e8-41b2-a005-8157d0c60361/action

{
    "action": "execute"
}
```

Response

None

Example Response

None

Returned Values

- Normal204
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.

Returned Value	Description
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

Error Codes

See Error Codes.

5.4.11 Deleting an AS Policy

Function

This interface is used to delete a specified AS policy.

URI

DELETE /autoscaling-api/v1/{project_id}/scaling_policy/{scaling_policy_id}

Table 5-127 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_policy_id	Yes	String	Specifies the AS policy ID.

Request

None

Example Request

This example deletes the AS policy with ID **906f73ff-56e8-41b2-a005-8157d0c60361**.

 $DELETE\ https://\{Endpoint\}/autoscaling-api/v1/\{project_id\}/scaling_policy/906f73ff-56e8-41b2-a005-8157d0c60361$

Response

None

Example Response

None

Returned Values

Normal

204

Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.

Returned Value	Description
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

Error Codes

See Error Codes.

5.4.12 Batch Managing AS Policies

Function

This interface is used to enable, disable, or delete AS policies in batches.

• A batch operation can be performed on a maximum of 20 AS policies at a time.

URI

POST /autoscaling-api/v1/{project_id}/scaling_policies/action

Table 5-128 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.

Request

Table 5-129 Request parameters

Parameter	Mandatory	Туре	Description
scaling_policy_ id	Yes	Array of strings	Specifies the AS policy ID.

Parameter	Mandatory	Туре	Description
action	Yes	String	Specifies an action to be performed on AS policies in batches. The options are as follows:
			• delete : deletes AS policies.
			• resume: enables AS policies.
			• pause: disables AS policies.
force_delete	No	String	Specifies whether to forcibly delete an AS policy. If the value is set to no , in-progress AS policies cannot be deleted. Options:
			• no (default): indicates that the AS policy is not forcibly deleted.
			yes: indicates that the AS policy is forcibly deleted.
			This parameter is available only when action is set to delete .
delete_alarm	No	String	Specifies whether to delete the alarm rule used by the alarm policy. The value can be yes or no (default).
			This parameter is available only when action is set to delete .

Example Request

This example enables the AS policies with IDs **policy_id1** and **policy_id2** in a batch

```
POST https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_policies/action

{
    "action": "resume",
    "scaling_policy_id": [
        "policy_id1",
        "policy_id2"
    ]
}
```

Response

None

Example Response

None

Normal204

• Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

Error Codes

See Error Codes.

5.5 AS Policy Execution Logs

5.5.1 Querying AS Policy Execution Logs

Function

This API is used to query the historical records of AS policy execution based on search criteria. The results are displayed by page.

- Search criteria can be the log ID, AS resource type, AS resource ID, policy execution type, start time, end time, start line number, and number of records.
- If no search criteria are specified, a maximum of 20 AS policy execution logs can be queried by default.

URI

GET /autoscaling-api/v1/{project_id}/scaling_policy_execute_log/{scaling_policy_id}

■ NOTE

You can type the question mark (?) and ampersand (&) at the end of the URI to define multiple search criteria. AS policy execution logs can be searched by all optional parameters in the following table. For details, see the example request.

Table 5-130 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_policy_id	Yes	String	Specifies the AS policy ID.
log_id	No	String	Specifies the ID of an AS policy execution log.
scaling_resource_ type	No	String	Specifies the scaling resource type. • AS group: SCALING_GROUP • Bandwidth: BANDWIDTH
scaling_resource_i	No	String	Specifies the scaling resource ID.

Parameter	Mandatory	Туре	Description
execute_type	No	String	Specifies the AS policy execution type. SCHEDULED: automatically triggered at a specified time point RECURRENCE: automatically triggered at a specified time period ALARM: alarm-triggered MANUAL: manually triggered INTERVAL_ALARM:
			automatically triggered by a refined scaling policy
start_time	No	String	Specifies the start time that complies with UTC for querying AS policy execution logs. The format of the start time is yyyy-MM-ddThh:mm:ssZ.
end_time	No	String	Specifies the end time that complies with UTC for querying AS policy execution logs. The format of the end time is yyyy-MM-ddThh:mm:ssZ.
start_number	No	Integer	Specifies the start line number. The default value is 0 . The minimum parameter value is 0 .
limit	No	Integer	Specifies the number of query records. The default value is 20 . The value range is 0 to 100.

Request

None

Example Request

This example queries the execution logs of the AS policy with ID **05545d3d-ccf9-4bca-ae4f-1e5e73ca0bf6**.

GET https://{Endpoint}/autoscaling-api/v1/edcb94a885a84ed3a3fdf8ea4d2741da/scaling_policy_execute_log/05545d3d-ccf9-4bca-ae4f-1e5e73ca0bf6

Response

Table 5-131 Response parameters

Parameter	Туре	Description
total_number	Integer	Specifies the total number of query records.
start_number	Integer	Specifies the start line number.
limit	Integer	Specifies the maximum number of resources to be queried.
scaling_policy _execute_log	Array of scaling_p olicy_exec ute_log objects	Specifies the AS policy execution logs. For details, see Table 5-132 .

Table 5-132 scaling_policy_execute_log field description

Parameter	Туре	Description
status	String	 Specifies the AS policy execution status. SUCCESS: The AS policy has been executed. FAIL: Executing the AS policy failed. EXECUTING: The AS policy is being executed.
failed_reason	String	Specifies the AS policy execution failure.
execute_type	String	 Specifies the AS policy execution type. SCHEDULED: automatically triggered at a specified time point RECURRENCE: automatically triggered at a specified time period ALARM: alarm-triggered MANUAL: manually triggered INTERVAL_ALARM: automatically triggered by a refined scaling policy
execute_time	String	Specifies the time when an AS policy was executed. The time format complies with UTC.
id	String	Specifies the ID of an AS policy execution log.
tenant_id	String	Specifies the project ID.
scaling_policy _id	String	Specifies the AS policy ID.

Parameter	Туре	Description
scaling_resour ce_type	String	 Specifies the scaling resource type. AS group: SCALING_GROUP Bandwidth: BANDWIDTH
scaling_resour ce_id	String	Specifies the scaling resource ID.
old_value	String	Specifies the source value.
desire_value	String	Specifies the target value.
limit_value	String	Specifies the operation restrictions. If scaling_resource_type is set to BANDWIDTH and operation is not SET, this parameter takes effect and the unit is Mbit/s. In this case: If operation is set to ADD, this parameter indicates the maximum bandwidth allowed. If operation is set to REDUCE, this parameter indicates the minimum bandwidth allowed.
type	String	 Specifies the AS policy execution type. ADD: indicates adding instances. REMOVE: indicates reducing instances. SET: indicates setting the number of instances to a specified value.
job_records	Array of job_record s objects	Specifies the tasks contained in a scaling action based on an AS policy. For details, see Table 5-133 .
meta_data	meta_dat a object	Provides additional information. For details, see Table 5-134 .

Table 5-133 job_records field description

Parameter	Туре	Description
job_name	String	Specifies the task name.
record_type	String	Specifies the record type.API: API calling typeMEG: message type
record_time	String	Specifies the record time.
request	String	Specifies the request body. This parameter is valid only if record_type is set to API .

Parameter	Туре	Description
response	String	Specifies the response body. This parameter is valid only if record_type is set to API .
code	String	Specifies the returned code. This parameter is valid only if record_type is set to API .
message	String	Specifies the message. This parameter is valid only if record_type is set to MEG .
job_status	String	 Specifies the execution status of the task. SUCCESS: The task is successfully executed. FAIL: The task failed to be executed.

Table 5-134 meta_data field description

Parameter	Туре	Description
metadata_ba ndwidth_shar e_type	String	Specifies the bandwidth sharing type in the bandwidth scaling policy.
metadata_eip _id	String	Specifies the EIP ID for the bandwidth in the bandwidth scaling policy.
metadataeip_ address	String	Specifies the EIP for the bandwidth in the bandwidth scaling policy.

Example Response

```
],
"total_number": 1,
"start_number": 0
}
```

Normal200

• Abnormal

Returned Values	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

Error Codes

See **Error Codes**.

5.6 Scaling Action Logs

5.6.1 Querying Scaling Action Logs

Function

This API is used to query scaling action logs based on search criteria. The results are displayed by page.

- Search criteria can be the start time, end time, start line number, and number of records.
- If no search criteria are specified, a maximum of 20 scaling action logs can be queried by default.

URI

GET /autoscaling-api/v1/{project_id}/scaling_activity_log/{scaling_group_id}

□ NOTE

You can type the question mark (?) and ampersand (&) at the end of the URI to define multiple search criteria. Scaling action logs can be searched by all optional parameters in the following table. For details, see the example request.

Table 5-135 Parameter description

Parameter	Mandat ory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_group_id	Yes	String	Specifies the AS group ID.
start_time	No	String	Specifies the start time that complies with UTC for querying scaling action logs. The format of the start time is yyyy-MM-ddThh:mm:ssZ.
end_time	No	String	Specifies the end time that complies with UTC for querying scaling action logs. The format of the end time is yyyy-MM-ddThh:mm:ssZ.
start_number	No	Integer	Specifies the start line number. The default value is 0 . The minimum parameter value is 0 .
limit	No	Integer	Specifies the number of query records. The default value is 20 . The value ranges from 0 to 100.

Request

None

Example Request

This example queries the scaling action logs of the AS group with ID **e5d27f5c-dd76-4a61-b4bc-a67c5686719a**.

 $GET\ https://\{Endpoint\}/autoscaling-api/v1/\{project_id\}/scaling_activity_log/e5d27f5c-dd76-4a61-b4bc-a67c5686719a$

Table 5-136 Response parameters

Parameter	Туре	Description
total_number	Intege r	Specifies the total number of query records.
start_number	Intege r	Specifies the start line number.
limit	Intege r	Specifies the maximum number of resources to be queried.
scaling_activity_log	Array of scalin g_acti vity_l og object s	Specifies scaling action logs. For details, see Table 5-137.

Table 5-137 scaling_activity_log field description

Parameter	Туре	Description	
status	String	Specifies the status of the scaling action.	
		SUCCESS: The scaling action has been performed.	
		FAIL: Performing the scaling action failed.	
		DOING: The scaling action is being performed.	
start_time	String	Specifies the start time of the scaling action. The time format must comply with UTC.	
end_time	String	Specifies the end time of the scaling action. The time format must comply with UTC.	
id	String	Specifies the scaling action log ID.	

Parameter	Туре	Description	
instance_removed_ list	String	Specifies the names of the instances removed from the AS group after the scaling action is complete. The instance names are separated using commas (,).	
instance_deleted_li st	String	Specifies the names of the instances removed and deleted from the AS group after the scaling action is complete. The instance names are separated using commas (,).	
instance_added_list	String	Specifies the names of the instances added to the AS group after the scaling action is complete. The instance names are separated using commas (,).	
scaling_value	Intege r	Specifies the number of added or removed instances in the scaling action.	
description	String	Specifies the description of the scaling action.	
instance_value	Intege r	Specifies the number of instances in the AS group.	
desire_value	Intege r	Specifies the expected number of instances for the scaling action.	

```
"limit": 20,
 "scaling_activity_log": [
     "id": "66e0f775-c4ac-4b52-9d5c-f93ba217aa5f",
    "instance_value": 1,
     "desire_value": 0,
     "scaling_value": 1,
     "start_time": "2019-03-18T16:00:11Z",
     "end_time": "2019-03-18T16:00:32Z",
    "instance_added_list": null,
"instance_deleted_list": "as-config-bblh-ONQE551S",
    "instance_removed_list": null,
     "status": "SUCCESS",
"description": "{\"reason\":[{\"change_reason\":\"RECURRENCE\",\"old_value\":1,\"scaling_policy_name \":\"as-policy-bvfk\",\"change_time\":\"2019-03-18T16:00:00Z\",\"new_value\":0,\"scaling_policy_id
\":\"05545d3d-ccf9-4bca-ae4f-1e5e73ca0bf6\"}]}"
  },
    "id": "c3a1fff6-84a3-4cbc-8ac0-e3b0f645ecd8",
    "instance_value": 0,
     "desire_value": 1,
     "scaling_value": 1,
     "start_time": "2019-03-16T10:21:11Z",
    "end_time": "2019-03-16T10:25:12Z",
"instance_added_list": "as-config-bblh-ONQE551S",
    "instance_deleted_list": null,
     "instance_removed_list": null,
     "status": "SUCCESS",
    "description": "{\"reason\":[{\"change_reason\":\"DIFF\",\"old_value\":0,\"change_time
\":\"2019-03-16T10:21:11Z\",\"new_value\":1}]}"
```

```
"total_number": 2,
"start_number": 0
```

Returned Values

Normal200

• Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

Error Codes

See Error Codes.

5.6.2 Querying Scaling Action Logs (V2)

Function

This API is used to query scaling action logs based on search criteria. The scaling actions include increasing instances, setting instances to the standby mode, and migrating instances to balance load. The results are displayed by page.

- The difference between the V2 and V1 APIs for querying scaling action logs is that V2 displays more detailed action logs, such as ELB migration logs and instance standby logs.
- Search criteria can be the start time, end time, start line number, number of records, and scaling action type.
- If no search criteria are specified, a maximum of 20 scaling action logs can be queried by default.

URI

GET /autoscaling-api/v2/{project_id}/scaling_activity_log/{scaling_group_id}

□ NOTE

You can type the question mark (?) and ampersand (&) at the end of the URI to define multiple search criteria. Scaling action logs can be searched by all optional parameters in the following table. For details, see the example request.

Table 5-138 Parameter description

Parameter	Mandator y	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_group_ id	Yes	String	Specifies the AS group ID.
log_id	No	String	Specifies the scaling action log ID.
start_time	No	String	Specifies the start time that complies with UTC for querying scaling action logs. The format of the start time is yyyy-MM-ddThh:mm:ssZ.
end_time	No	String	Specifies the end time that complies with UTC for querying scaling action logs. The format of the end time is yyyy-MM-ddThh:mm:ssZ.
start_number	No	Integer	Specifies the start line number. The default value is 0 . The minimum parameter value is 0 .

Parameter	Mandator y	Туре	Description
limit	No	Integer	Specifies the number of query records. The default value is 20 . The value ranges from 0 to 100.
type	No	String	Specifies the types of the scaling actions to be queried. Different types are separated by commas (,).
			NORMAL: indicates a common scaling action.
			MANUAL_REMOVE: indicates manually removing instances from an AS group.
			MANUAL_DELETE: indicates manually removing and deleting instances from an AS group.
			MANUAL_ADD: indicates manually adding instances to an AS group.
			ELB_CHECK_DELETE: indicates that instances are removed from an AS group and deleted based on the ELB health check result.
			AUDIT_CHECK_DELETE: indicates that instances are removed from an AS group and deleted based on the audit.
			DIFF: indicates that the number of expected instances is different from the actual number of instances.
			MODIFY_ELB: indicates the load balancer migration.
			ENTER_STANDBY: indicates setting instances to standby mode.
			EXIT_STANDBY: indicates canceling standby mode for instances.

Parameter	Mandator y	Туре	Description
status	No	String	Specifies the status of the scaling action.
			SUCCESS: The scaling action has been performed.
			FAIL: Performing the scaling action failed.
			DOING: The scaling action is being performed.

Request

None

Example Request

This example queries the scaling action logs of the AS group with ID **e5d27f5c-dd76-4a61-b4bc-a67c5686719a**. The start time is 2018-11-22T00:00:00Z, and the end time is 2018-11-22T14:00:00Z.

 $GET\ https://\{Endpoint\}/autoscaling-api/v2/\{project_id\}/scaling_activity_log/e5d27f5c-dd76-4a61-b4bc-a67c5686719a?start_time=2018-11-22T00:00:00Z\&end_time=2018-11-22T14:00:00Z$

Table 5-139 Response parameters

Parameter	Туре	Description
total_number	Integer	Specifies the total number of query records.
start_number	Integer	Specifies the start line number.
limit	Integer	Specifies the maximum number of resources to be queried.
scaling_activity_log	Array of scaling_act ivity_log objects	Specifies scaling action logs. For details, see Table 5-140 .

Table 5-140 scaling_activity_log field description

Parameter	Туре	Description
status	String	 Specifies the status of the scaling action. SUCCESS: The scaling action has been performed. FAIL: Performing the scaling action failed. DOING: The scaling action is being performed.
start_time	String	Specifies the start time of the scaling action. The time format must comply with UTC.
end_time	String	Specifies the end time of the scaling action. The time format must comply with UTC.
id	String	Specifies the scaling action log ID.
instance_removed_li st	Array of scaling_ins tance objects	Specifies names of the ECSs that are removed from the AS group in a scaling action. For details, see Table 5-141 .
instance_deleted_lis t	Array of scaling_ins tance objects	Specifies names of the ECSs that are removed from the AS group and deleted in a scaling action. For details, see Table 5-141 .
instance_added_list	Array of scaling_ins tance objects	Specifies names of the ECSs that are added to the AS group in a scaling action. For details, see Table 5-141 .
instance_failed_list	Array of scaling_ins tance objects	Specifies the ECSs for which a scaling action fails. For details, see Table 5-141 .
instance_standby_li st	Array of scaling_ins tance objects	Specifies the ECSs that are set to standby mode or for which standby mode is canceled in a scaling action. For details, see Table 5-141.
scaling_value	Integer	Specifies the number of added or deleted instances during the scaling.
description	String	Specifies the description of the scaling action.
instance_value	Integer	Specifies the number of instances in the AS group.

Parameter	Туре	Description
desire_value	Integer	Specifies the expected number of instances for the scaling action.
lb_bind_success_list	Array of modify_lb objects	Specifies the load balancers that are bound to the AS group. For details, see Table 5-142 .
lb_bind_failed_list	Array of modify_lb objects	Specifies the load balancers that failed to be bound to the AS group. For details, see Table 5-142 .
lb_unbind_success_l ist	Array of modify_lb objects	Specifies the load balancers that are unbound from the AS group. For details, see Table 5-142.
lb_unbind_failed_lis t	Array of modify_lb objects	Specifies the load balancers that failed to be unbound from the AS group. For details, see Table 5-142 .
type	String	Specifies the type of the scaling action.

Table 5-141 scaling_instance field description

Parameter	Туре	Description	
instance_name	String	Specifies the ECS name.	
instance_id	String	Specifies the ECS ID.	
failed_reason	String	Specifies the cause of the instance scaling failure.	
failed_details	String	Specifies details of the instance scaling failure.	
instance_config	String	Specifies the information about instance configurations.	

Table 5-142 modify_lb field description

Parameter	Туре	Description
lbaas_listener	lbaas_ listen er object	Specifies information about an enhanced load balancer. For details, see Table 5-143 .
listener	String	Specifies information about a classic load balancer.
failed_reason	String	Specifies the cause of a load balancer migration failure.

Parameter	Туре	Description
failed_details	String	Specifies the details of a load balancer migration failure.

Table 5-143 lbaas_listener field description

Parameter	Туре	Description
listener_id	String	Specifies the listener ID.
pool_id	String	Specifies the backend ECS group ID.
protocol_port	Intege r	Specifies the backend protocol port, which is the port on which a backend ECS listens for traffic.
weight	Intege r	Specifies the weight, which determines the portion of requests a backend ECS processes when being compared to other backend ECSs added to the same listener.

```
"limit": 20,
"scaling_activity_log": [
 "id": "8753a18c-931d-4cb8-8d49-6c99396af348",
 "instance_value": 0,
 "desire_value": 0,
 "scaling_value": 0,
 "start_time": "2018-11-22T13:46:20Z",
"end_time": "2018-11-22T13:47:38Z",
 "status": "SUCCESS"
 "lb_bind_success_list": [
  {
    "lbaas_listener": {
     "weight": 1,
     "listener_id": null,
"pool_id": "0f0a9dd8-2e1d-4432-8ca2-49adc75aa662",
     "protocol_port": 82
 ],
"lb_bind_failed_list": [],
 "lb_unbind_success_list": [],
 "lb_unbind_failed_list": [],
 "type": "MODIFY_ELB"
 "id": "44152cf2-a005-4507-b6e9-66a2a64eff52",
 "instance_value": 0,
 "desire_value": 1,
 "scaling_value": 1,
 "start_time": "2018-11-22T13:44:22Z",
 "end_time": "2018-11-22T13:46:02Z",
 "instance_added_list": [
    "instance_id": "8e273bac-d303-46dc-9883-628be2294bdf",
    "instance_name": "as-config-t66a_9W8L9SSK"
```

```
}
],
"instance_deleted_list": [],
"instance_removed_list": [],
"instance_failed_list": [],
"status": "SUCCESS",
"description": "{\"reason\":[{\"change_reason\":\"MANNUAL\",\"old_value\":0,\"change_time
\":\"2018-11-22T13:44:19Z\",\"new_value\":1}]}",
"type": "NORMAL"
}

],
"total_number": 2,
"start_number": 0
}
```

- Normal200
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See Error Codes.

5.7 Quotas

5.7.1 Querying AS Quotas

Function

This API is used to query the total quotas and used quotas of AS groups, AS configurations, bandwidth scaling policies, AS policies, and instances for a specified tenant.

URI

GET /autoscaling-api/v1/{project_id}/quotas

Table 5-144 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.

Request

None

Example Request

This example queries the total quotas and used quotas of AS groups, AS configurations, bandwidth scaling policies, AS policies, and instances for a specified tenant.

GET https://{Endpoint}/autoscaling-api/v1/{project_id}/quotas

Table 5-145 Response parameters

Parameter	Туре	Description
quotas	quotas object	Specifies quota details. For details, see Table 5-146 .

Table 5-146 quotas field description

Parameter	Туре	Description
resources	Array of resources objects	Specifies resources. For details, see Table 5-147 .

Table 5-147 resources field description

Parameter	Туре	Description
type	String	Specifies the quota type.
		scaling_Group: AS group quota
		scaling_Config: AS configuration quota
		• scaling_Policy: AS policy quota
		scaling_Instance: instance quota
		bandwidth_scaling_policy: bandwidth scaling policy quota
used	Integer	Specifies the used amount of the quota.
		When type is set to scaling_Policy or scaling_Instance , this parameter is reserved, and the system returns -1 as the parameter value. You can query the used quota of AS policies and AS instances in a specified AS group. For details, see Querying AS Policy and Instance Quotas .
quota	Integer	Specifies the total quota.
max	Integer	Specifies the quota upper limit.
min	Integer	Specifies the quota lower limit.

```
"used": -1,
    "quota": 50,
    "max": 50,
    "min": 0
},
{
    "type": "scaling_Instance",
    "used": -1,
    "quota": 200,
    "max": 1000,
    "min": 0
},
{
    "type": "bandwidth_scaling_policy",
    "used": 1,
    "quota": 10,
    "max": 100,
    "min": 0
}
}
```

- Normal200
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.

Returned Value	Description
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See Error Codes.

5.7.2 Querying AS Policy and Instance Quotas

Function

This interface is used to query the total quotas and used quotas of AS policies and instances of a specified AS group by group ID.

URI

GET /autoscaling-api/v1/{project_id}/quotas/{scaling_group_id}

Table 5-148 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_group_i d	Yes	String	Specifies the AS group ID.

Request

None

Example Request

This example queries the total quotas and used quotas of the AS policies and instances in the AS group with ID **e5d27f5c-dd76-4a61-b4bc-a67c5686719a**.

GET https://{Endpoint}/autoscaling-api/v1/{project_id}/quotas/e5d27f5c-dd76-4a61-b4bc-a67c5686719a

Response

Table 5-149 Response parameters

Parameter	Туре	Description
quotas	quotas object	Specifies quota details. For details, see Table 5-150 .

Table 5-150 quotas field description

Parameter	Туре	Description
resources	Array of resources objects	Specifies resources. For details, see Table 5-151 .

Table 5-151 resources field description

Parameter	Туре	Description
type	String	Specifies the quota type. • scaling_Policy: indicates AS policies. • scaling_Instance: indicates instances.
used	Integer	Specifies the used quota.
quota	Integer	Specifies the total quota.
max	Integer	Specifies the quota upper limit.
min	Integer	Specifies the quota lower limit.

Example Response

} }

Returned Values

Normal200

Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

Error Codes

See **Error Codes**.

5.8 Notifications

5.8.1 Enabling Notification for an AS Group

Function

This API is used to enable notification for an AS group. Each time this API is called, the AS group adds a notification topic and scenario. Each AS group supports up to five topics. The notification topic is pre-configured and subscribed by you in SMN. When the live network complies with the notification scenario that matches the notification topic, the AS group sends a notification to your subscription endpoints.

URI

PUT /autoscaling-api/v1/{project_id}/scaling_notification/{scaling_group_id}

Table 5-152 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_group_i d	Yes	String	Specifies the AS group ID.

Request

Table 5-153 Request parameters

Parameter	Mandatory	Туре	Description
topic_urn	Yes	String	Specifies a unique topic in SMN.

Parameter	Mandatory	Туре	Description
topic_scene	Yes	Array of strings	Specifies a notification scenario, which can be one of the following:
			SCALING_UP: indicates that the capacity is expanded.
			SCALING_UP_FAIL: indicates that the capacity expansion failed.
			SCALING_DOWN: indicates that the capacity is reduced.
			SCALING_DOWN_FAIL: indicates that the capacity reduction failed.
			SCALING_GROUP_ABNO RMAL: indicates that an exception has occurred in the AS group.

Example Request

This example enables notification with topic_urn urn:smn:regionId:b53e5554fad0494d96206fb84296510b:gsh for the AS group with ID e5d27f5c-dd76-4a61-b4bc-a67c5686719a. After the configuration is complete, a notification will be sent when capacity expansion succeeds or fails, capacity reduction succeeds or fails, or an error occurs in the AS group.

```
PUT https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_notification/e5d27f5c-dd76-4a61-b4bc-a67c5686719a

{
    "topic_urn": "urn:smn:regionId:b53e5554fad0494d96206fb84296510b:gsh",
    "topic_scene": [

"SCALING_UP","SCALING_UP_FAIL","SCALING_DOWN","SCALING_DOWN_FAIL","SCALING_GROUP_ABNOR MAL"
    ]
}
```

Table 5-154 Response parameters

Parameter	Туре	Description
topic_urn	String	Specifies a unique topic in SMN.

Parameter	Туре	Description
topic_scene	Array of strings	Specifies a notification scenario, which can be one of the following:
		SCALING_UP: indicates that the capacity is expanded.
		• SCALING_UP_FAIL : indicates that the capacity expansion failed.
		• SCALING_DOWN : indicates that the capacity is reduced.
		SCALING_DOWN_FAIL: indicates that the capacity reduction failed.
		SCALING_GROUP_ABNORMAL: indicates that an exception has occurred in the AS group.
topic_name	String	Specifies the topic name in SMN.

```
{
  "topic_urn": "urn:smn:regionld:b53e5554fad0494d96206fb84296510b:gsh",
  "topic_scene": [

"SCALING_UP","SCALING_UP_FAIL","SCALING_DOWN","SCALING_DOWN_FAIL","SCALING_GROUP_ABNOR
MAL"
  ],
  "topic_name": "gsh"
}
```

- Normal200
- Abnormal

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

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

See Error Codes.

5.8.2 Querying an AS Group Notification List

Function

This API is used to query an AS group notification list by group ID.

URI

GET /autoscaling-api/v1/{project_id}/scaling_notification/{scaling_group_id}

Table 5-155 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_group_id	Yes	String	Specifies the AS group ID.

Request

None

Example Request

This example queries the notifications of the AS group with ID **e5d27f5c-dd76-4a61-b4bc-a67c5686719a**.

GET https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_notification/e5d27f5c-dd76-4a61-b4bc-a67c5686719a

Response

Table 5-156 Response parameters

Parameter	Туре	Description
topics	Array of topics objects	Specifies the AS group notification list.

Table 5-157 topics field description

Parameter	Туре	Description
topic_urn	String	Specifies a unique topic in SMN.
topic_scene	Array of strings	 Specifies a notification scenario, which can be one of the following: SCALING_UP: indicates that the capacity is expanded. SCALING_UP_FAIL: indicates that the capacity expansion failed. SCALING_DOWN: indicates that the capacity is reduced. SCALING_DOWN_FAIL: indicates that the capacity reduction failed. SCALING_GROUP_ABNORMAL: indicates that an exception has occurred in the AS group.
topic_name	String	Specifies the topic name in SMN.

Example Response

- Normal200
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See Error Codes.

5.8.3 Deleting a Notification for an AS Group

Function

This interface is used to delete a notification for a specified AS group.

URI

DELETE /autoscaling-api/v1/{project_id}/scaling_notification/{scaling_group_id}/ {topic_urn}

Table 5-158 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_group_i d	Yes	String	Specifies the AS group ID.
topic_urn	Yes	String	Specifies a unique topic in SMN.

Request

None

Example Request

This example deletes the notification with topic_urn urn:smn:regionld:b53e5554fad0494d96206fb84296510b:gsh in the AS group with ID e5d27f5c-dd76-4a61-b4bc-a67c5686719a.

 $DELETE\ https://\{Endpoint\}/autoscaling-api/v1/\{project_id\}/scaling_notification/e5d27f5c-dd76-4a61-b4bc-a67c5686719a/urn:smn:\\ region/d:b53e5554fad0494d96206fb84296510b:gsh$

Response

None

Example Response

None

- Normal204
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See **Error Codes**.

5.9 Lifecycle Hooks

5.9.1 Creating a Lifecycle Hook

Function

This interface is used to create a lifecycle hook for an AS group. Up to five lifecycle hooks can be created for one AS group.

- After the creation, when the AS group performs a scaling action, the lifecycle hook suspends the target instance and sets it to be in Wait (Adding to AS group) or Wait (Removing from AS group) status. This status retains until the timeout duration expires or you manually call back this status.
- During the instance waiting duration, you can perform customized operations. For example, you can install or configure software on a newly started instance, or download the log file from the instance before the instance terminates.

URI

POST /autoscaling-api/v1/{project_id}/scaling_lifecycle_hook/{scaling_group_id}

Table 5-159 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_group_i d	Yes	String	Specifies the AS group ID.

Request

Table 5-160 Request parameters

Parameter	Mandatory	Туре	Description
lifecycle_hoo k_name	Yes	String	Specifies the lifecycle hook name. The name contains only letters, digits, underscores (_), and hyphens (-), and cannot exceed 32 characters.
lifecycle_hoo k_type	Yes	String	Specifies the lifecycle hook type. Options: • INSTANCE_TERMINATING: The hook suspends the instance when the instance is terminated.
			• INSTANCE_LAUNCHING : The hook suspends the instance when the instance is started.

Parameter	Mandatory	Туре	Description
default_resul t	No	String	Specifies the default lifecycle hook callback operation. By default, this operation is performed when the timeout duration expires.
			ABANDON
			• CONTINUE
			NOTE
			If an instance is starting, CONTINUE indicates that your customized operations are successful and the instance can be used. ABANDON indicates that your customized operations failed, and the instance will be terminated. In such a case, the scaling action fails, and you must create a new instance.
			If an instance is stopping, both ABANDON and CONTINUE allow instance termination. The difference between the two states is as follows: ABANDON stops other lifecycle hooks, but CONTINUE allows the completion of other lifecycle hooks.
			The default value of this parameter is ABANDON .
default_time out	No	Integer	Specifies the lifecycle hook timeout duration, which ranges from 60 to 86400 in the unit of second. The default value is 3600.
			By default, this parameter specifies the instance waiting duration. You can prolong the timeout duration or perform the CONTINUE or ABANDON operation before the timeout duration expires.

Parameter	Mandatory	Туре	Description
notification_t opic_urn	Yes	String	Specifies a unique topic in SMN. This parameter specifies a notification object for a lifecycle hook. When an instance is suspended by the lifecycle hook, the SMN service sends a notification to the object. This notification contains the basic instance information, your customized notification content, and the token for controlling lifecycle operations.
notification_ metadata	No	String	Specifies a customized notification, which contains no more than 256 characters in length. The message cannot contain the following characters: <>&'() After a notification object is configured, the SMN service sends your customized

Example Request

This example creates a lifecycle hook named **test-hook1** in **the AS group with ID e5d27f5c-dd76-4a61-b4bc-a67c5686719a**. The configuration is as follows: The callback operation is **ABANDON**, the timeout duration is **3600 seconds**; the notification topic_urn is

urn:smn: *regionId***: b53e5554fad0494d96206fb84296510b:gsh**, the hook suspends the instance when the instance is started.

```
POST https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_lifecycle_hook/e5d27f5c-dd76-4a61-b4bc-a67c5686719a

{
    "lifecycle_hook_name": "test-hook1",
    "default_result": "ABANDON",
    "default_timeout": 3600,
    "notification_topic_urn": "urn:smn:region/d:b53e5554fad0494d96206fb84296510b:gsh",
    "lifecycle_hook_type": "INSTANCE_LAUNCHING"
}
```

Table 5-161 Response parameters

Parameter	Туре	Description
lifecycle_hook_name	String	Specifies the lifecycle hook name.

Parameter	Туре	Description
lifecycle_hook_type	String	Specifies the lifecycle hook type.INSTANCE_TERMINATINGINSTANCE_LAUNCHING
default_result	String	Specifies the default lifecycle hook callback operation. • ABANDON • CONTINUE
default_timeout	Integer	Specifies the lifecycle hook timeout duration in the unit of second.
notification_topic_ur n	String	Specifies a unique topic in SMN.
notification_topic_na me	String	Specifies the topic name in SMN.
notification_metadat a	String	Specifies the notification message.
create_time	String	Specifies the UTC-compliant time when the lifecycle hook is created.

```
{
    "lifecycle_hook_name": "test-hook1",
    "default_result": "ABANDON",
    "default_timeout": 3600,
    "notification_topic_urn": "urn:smn:regionId:b53e5554fad0494d96206fb84296510b:gsh",
    "notification_topic_name": "gsh",
    "lifecycle_hook_type": "INSTANCE_LAUNCHING",
    "notification_metadata": null,
    "create_time": "2019-03-18T16:00:11Z"
}
```

- Normal200
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.

Returned Value	Description
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See **Error Codes**.

5.9.2 Querying Lifecycle Hooks

Function

This interface is used to query lifecycle hooks by AS group ID.

URI

GET /autoscaling-api/v1/{project_id}/scaling_lifecycle_hook/{scaling_group_id}/list

Table 5-162 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.

Parameter	Mandatory	Туре	Description
scaling_group_id	Yes	String	Specifies the AS group ID.

Request

None

Example Request

This example queries the lifecycle hooks of the AS group with ID **e5d27f5c-dd76-4a61-b4bc-a67c5686719a**.

 $GET\ https://\{Endpoint\}/autoscaling-api/v1/\{project_id\}/scaling_lifecycle_hook/e5d27f5c-dd76-4a61-b4bc-a67c5686719a/list$

Table 5-163 Response parameters

Parameter	Туре	Description
lifecycle_hooks	Array of lifecycle_hooks objects	Specifies lifecycle hooks. For details, see Table 5-164 .

Table 5-164 lifecycle_hooks field description

Parameter	Туре	Description	
lifecycle_hook_ name	String	Specifies the lifecycle hook name.	
lifecycle_hook_t ype	String	Specifies the lifecycle hook type.INSTANCE_TERMINATINGINSTANCE_LAUNCHING	
default_result	String	Specifies the default lifecycle hook callback operation. • ABANDON • CONTINUE	
default_timeout	Integer	Specifies the lifecycle hook timeout duration in the unit of second.	
notification_top ic_urn	String	Specifies a unique topic in SMN.	

Parameter	Туре	Description
notification_top ic_name	String	Specifies the topic name in SMN.
notification_me tadata	String	Specifies the customized notification.
create_time	String	Specifies the time when the lifecycle hook is created. The time is UTC-compliant.

- Normal200
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.

Returned Value	Description
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See Error Codes.

5.9.3 Querying a Lifecycle Hook

Function

This interface is used to query details about a specified lifecycle hook by AS group ID and lifecycle hook name.

URI

GET /autoscaling-api/v1/{project_id}/scaling_lifecycle_hook/{scaling_group_id}/ {lifecycle_hook_name}

Table 5-165 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.

Parameter	Mandatory	Туре	Description
scaling_group_ id	Yes	String	Specifies the AS group ID.
lifecycle_hook_ name	Yes	String	Specifies the lifecycle hook name.

Request

None

Example Request

This example queries the details about the lifecycle hook named **test-hook1** of the AS group with ID **e5d27f5c-dd76-4a61-b4bc-a67c5686719a**.

 $GET\ https://\{Endpoint\}/autoscaling-api/v1/\{project_id\}/scaling_lifecycle_hook/e5d27f5c-dd76-4a61-b4bc-a67c5686719a/test-hook1$

Table 5-166 Response parameters

Parameter	Туре	Description
lifecycle_hook_name	String	Specifies the lifecycle hook name.
lifecycle_hook_type	String	Specifies the lifecycle hook type. INSTANCE_TERMINATING INSTANCE_LAUNCHING
default_result	String	Specifies the default lifecycle hook callback operation. • ABANDON • CONTINUE
default_timeout	Integer	Specifies the lifecycle hook timeout duration in the unit of second.
notification_topic_ur n	String	Specifies a unique topic in SMN.
notification_topic_na me	String	Specifies the topic name in SMN.
notification_metadat a	String	Specifies the customized notification.
create_time	String	Specifies the time when the lifecycle hook is created. The time is UTC-compliant.

```
{
    "lifecycle_hook_name": "test-hook1",
    "default_result": "CONTINUE",
    "default_timeout": 3600,
    "notification_topic_urn": "urn:smn:regionId:b53e5554fad0494d96206fb84296510b:gsh",
    "notification_topic_name": "gsh",
    "lifecycle_hook_type": "INSTANCE_LAUNCHING",
    "notification_metadata": null,
    "create_time": "2016-11-18T04:01:34Z"
}
```

Returned Values

Normal

200

Abnormal

Returned Value	Description	
400 Bad Request	The server failed to process the request.	
401 Unauthorized	You must enter the username and password to access the requested page.	
403 Forbidden	You are forbidden to access the requested page.	
404 Not Found	The server could not find the requested page.	
405 Method Not Allowed	You are not allowed to use the method specified in the request.	
406 Not Acceptable	The response generated by the server could not be accepted by the client.	
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.	
408 Request Timeout	The request timed out.	
409 Conflict	The request could not be processed due to a conflict.	
500 Internal Server Error	Failed to complete the request because of an internal service error.	
501 Not Implemented	Failed to complete the request because the server does not support the requested function.	
502 Bad Gateway	Failed to complete the request because the request is invalid.	
503 Service Unavailable	Failed to complete the request because the system is unavailable.	
504 Gateway Timeout	A gateway timeout error occurred.	

See Error Codes.

5.9.4 Modifying a Lifecycle Hook

Function

This interface is used to modify the information about a specified lifecycle hook.

URI

PUT /autoscaling-api/v1/{project_id}/scaling_lifecycle_hook/{scaling_group_id}/ {lifecycle_hook_name}

Table 5-167 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_group_i d	Yes	String	Specifies the AS group ID.
lifecycle_hook_ name	Yes	String	Specifies the lifecycle hook name.

Request

Table 5-168 Request parameters

Parameter	Mandatory	Туре	Description
lifecycle_hoo k_type	No	String	Specifies the lifecycle hook type. Options:
			• INSTANCE_TERMINATING: The hook suspends the instance when the instance is terminated.
			INSTANCE_LAUNCHING: The hook suspends the instance when the instance is started.

Parameter	Mandatory	Туре	Description
default_resul t	No	String	Specifies the default lifecycle hook callback operation. By default, this operation is performed when the timeout duration expires.
			ABANDON
			• CONTINUE
			• If an instance is starting, CONTINUE indicates that your customized operations are successful and the instance can be used. ABANDON indicates that your customized operations failed, and the instance will be terminated. In such a case, the scaling action fails, and you must create a new instance.
			 If an instance is stopping, both ABANDON and CONTINUE allow instance termination. The difference between the two states is as follows: ABANDON stops other lifecycle hooks, but CONTINUE allows the completion of other lifecycle hooks. The default value of this parameter is ABANDON.
default_time out	No	Integer	Specifies the lifecycle hook timeout duration, which ranges from 60 to 86400 in the unit of second. The default value is 3600.
			By default, this parameter specifies the instance waiting duration. You can prolong the timeout duration or perform the CONTINUE or ABANDON operation before the timeout duration expires.
notification_t opic_urn	No	String	Specifies a unique topic in SMN. This parameter specifies a notification object for a lifecycle hook. When an instance is suspended by the lifecycle hook, the SMN service sends a notification to the object. This notification contains the basic instance information, your customized notification content, and the token for controlling lifecycle operations.

Parameter	Mandatory	Туре	Description
notification_ metadata	No	String	Specifies a customized notification, which contains no more than 256 characters in length. The message cannot contain the following characters: <>&'()
			After a notification object is configured, the SMN service sends your customized notification to the object.

Example Request

This example changes the callback operation of the lifecycle hook named **test-hook1** in the AS group with ID **e5d27f5c-dd76-4a61-b4bc-a67c5686719a** to **CONTINUE**.

```
PUT\ https://\{Endpoint\}/autoscaling-api/v1/\{project\_id\}/scaling\_lifecycle\_hook/e5d27f5c-dd76-4a61-b4bc-a67c5686719a/test-hook1
```

```
"default_result": "CONTINUE"
```

Response

Table 5-169 Response parameters

Parameter	Туре	Description
lifecycle_hook_name	String	Specifies the lifecycle hook name.
lifecycle_hook_type	String	Specifies the lifecycle hook type. INSTANCE_TERMINATING INSTANCE_LAUNCHING
default_result	String	Specifies the default lifecycle hook callback operation. • ABANDON • CONTINUE
default_timeout	Integer	Specifies the lifecycle hook timeout duration in the unit of second.
notification_topic_ur n	String	Specifies a unique topic in SMN.
notification_topic_na me	String	Specifies the topic name in SMN.
notification_metadat a	String	Specifies the customized notification.

Parameter	Туре	Description
create_time		Specifies the time when the lifecycle hook is created. The time is UTC-compliant.

Example Response

```
{
    "lifecycle_hook_name": "test-hook1",
    "default_result": "CONTINUE",
    "default_timeout": 3600,
    "notification_topic_urn": "urn:smn:regionId:b53e5554fad0494d96206fb84296510b:gsh",
    "notification_topic_name": "gsh",
    "lifecycle_hook_type": "INSTANCE_LAUNCHING",
    "notification_metadata": null,
    "create_time": "2016-11-18T04:01:34Z"
}
```

Returned Values

Normal200

Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.

Returned Value	Description
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See Error Codes.

5.9.5 Calling Back a Lifecycle Hook

Function

This interface is used to call back the lifecycle hook specified by a scaling instance based on the lifecycle action key or based on the instance ID and lifecycle hook name.

- If you have completed customized operations before the timeout duration expires, you can terminate or continue the lifecycle operations.
- If you require more time to complete your custom operations, extend the timeout duration to enable the instance to remain in a wait state for an additional hour.
- The callback operation can be performed only when the lifecycle hook of the target instance is in **HANGING** state.

URI

PUT /autoscaling-api/v1/{project_id}/scaling_instance_hook/{scaling_group_id}/callback

Table 5-170 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_group_ id	Yes	String	Specifies the AS group ID.

Request

Table 5-171 Request parameters

Parameter	Mandatory	Туре	Description
lifecycle_actio n_key	No	String	Specifies the lifecycle operation token, which is obtained by calling the API for querying instance suspension.
			When specifying a lifecycle callback object, this field is mandatory if the instance_id parameter is not used. If both this parameter and the instance_id parameter are used, preferentially use this parameter for callback.
instance_id	No	String	Specifies the instance ID. When a lifecycle callback object is specified, this parameter is mandatory if the lifecycle_action_key parameter is not used.
lifecycle_hook _name	No	String	Specifies the lifecycle hook name. When a lifecycle callback object is specified, this parameter is mandatory if the lifecycle_action_key parameter is not used.
lifecycle_actio n_result	Yes	String	 Specifies the lifecycle callback action. ABANDON: terminates the instance. CONTINUE: continues the instance. EXTEND: extends the timeout duration, one hour each time.

Example Request

This example uses the lifecycle token 23880867-6288-4470-98a8-f8bda096b6c4 to perform the ABANDON callback operation in the AS group with ID e5d27f5c-dd76-4a61-b4bc-a67c5686719a.

```
PUT https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_instance_hook/e5d27f5c-dd76-4a61-b4bc-a67c5686719a/callback
```

```
"lifecycle_action_result": "ABANDON",
"lifecycle_action_key":"23880867-6288-4470-98a8-f8bda096b6c4"
```

Response

None

Example Response

None

Returned Values

Normal204

• Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See Error Codes.

5.9.6 Querying Instance Suspension

Function

After a lifecycle hook is added, when an AS group performs a scaling action, the lifecycle hook suspends the target instance and sets it to be in waiting state. You can query the instance suspension based on search criteria.

- Search instance suspension by instance ID.
- If no search criteria are specified, the suspension about all instances in the specified AS group is gueried by default.

URI

GET /autoscaling-api/v1/{project_id}/scaling_instance_hook/{scaling_group_id}/list

□ NOTE

You can type the question mark (?) and ampersand (&) at the end of the URI to define multiple search criteria. Instance suspension can be searched by all optional parameters in the following table. For details, see the example request.

Table 5-172 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_group_id	Yes	String	Specifies the AS group ID.
instance_id	No	String	Specifies the AS instance ID.

Request

None

Example Request

This example queries the suspension of the instance with ID **b25c1589**-c96c-465b-9fef-d06540d1945c in the AS group with ID e5d27f5c-dd76-4a61-b4bc-a67c5686719a.

 $GET\ https://\{Endpoint\}/autoscaling-api/v1/\{project_id\}/scaling_instance_hook/e5d27f5c-dd76-4a61-b4bc-a67c5686719a/list?instance_id=b25c1589-c96c-465b-9fef-d06540d1945c$

Response

Table 5-173 Response parameters

Parameter	Туре	Description
instance_hangi ng_info	Array of instance_ha nging_info objects	Specifies lifecycle hook information about an AS instance.

Table 5-174 instance_hanging_info field description

Parameter	Туре	Description
lifecycle_hook_ name	String	Specifies the lifecycle hook name.
lifecycle_action _key	String	Specifies the lifecycle action key, which determines the lifecycle callback object.
instance_id	String	Specifies the AS instance ID.
scaling_group_i d	String	Specifies the AS group ID.
lifecycle_hook_ status	String	 Specifies the lifecycle hook status. HANGING: suspends the instance. CONTINUE: continues the instance. ABANDON: terminates the instance.
timeout	String	Specifies the timeout duration in the format of "YYYY-MM-DDThh:mm:ssZ". The time is UTC-compliant.
default_result	String	Specifies the default lifecycle hook callback operation.

Example Response

Returned Values

- Normal200
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

Error Codes

See **Error Codes**.

5.9.7 Deleting a Lifecycle Hook

Function

This interface is used to delete a specified lifecycle hook.

When a scaling action is being performed in an AS group, the lifecycle hooks of the AS group cannot be deleted.

URI

DELETE /autoscaling-api/v1/{project_id}/scaling_lifecycle_hook/{scaling_group_id}/ {lifecycle_hook_name}

Table 5-175 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_group_i d	Yes	String	Specifies the AS group ID.
lifecycle_hook_ name	Yes	String	Specifies the lifecycle hook name.

Request

None

Example Request

This example deletes the lifecycle hook named **test-hook1** in the AS group with ID **e5d27f5c-dd76-4a61-b4bc-a67c5686719a**.

 $\label{lem:decomposition} DELETE\ https://\{Endpoint\}/autoscaling-api/v1/\{project_id\}/scaling_lifecycle_hook/e5d27f5c-dd76-4a61-b4bc-a67c5686719a/test-hook1$

Response

None

Example Response

None

Returned Values

- Normal204
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See Error Codes.

5.10 Tags

5.10.1 Querying Tags

Function

This API is used to query tags of a specific type of resource in a project.

URI

GET /autoscaling-api/v1/{project_id}/{resource_type}/tags

Table 5-176 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
resource_typ e	Yes	String	Specifies the resource type. The option is as follows:
			scaling_group_tag: indicates that the resource type is AS groups.

Request

None

Example Request

This example queries tags of AS groups in a project.

GET https://{Endpoint}/autoscaling-api/v1/{project_id}/scaling_group_tag/tags

Response

Table 5-177 Response parameters

Parameter	Туре	Description
tags	Array of tags objects	Specifies the tags.

Table 5-178 tags field description

Parameter	Туре	Description
key	String	Specifies the tag key.
values	Array of strings	Specifies the tag values.

Example Response

```
{
    "key": "111",
    "values": [
    "key": "environment",
    "values": [
    "DEV"
    ]
},
{
    "key": "ENV151",
    "values": [
    "ENV151"
    ]
},
{
    "key": "ENV152",
    "values": [
    "ENV152"
    ]
}
```

Returned Values

Normal

200

Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.

Returned Value	Description
500 Internal Server Error	Failed to complete the request because an internal service error occurred.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the system is currently unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See **Error Codes**.

5.10.2 Querying Tags of a Resource

Function

This interface is used to query tags of a specified resource in a project.

URI

GET /autoscaling-api/v1/{project_id}/{resource_type}/{resource_id}/tags

Table 5-179 Parameter description

Parameter	Mandatory	Туре	Description
project_id	Yes	String	Specifies the project ID.
resource_typ e	Yes	String	Specifies the resource type. The option is as follows:
			scaling_group_tag: indicates that the resource type is AS groups.
resource_id	Yes	String	Specifies the resource ID.

Request

None

Example Request

This example queries the tags of the AS group with ID **e5d27f5c-dd76-4a61-b4bc-a67c5686719a**.

 $GET\ https://\{Endpoint\}/autoscaling-api/v1/\{project_id\}/scaling_group_tag/e5d27f5c-dd76-4a61-b4bc-a67c5686719a/tags$

Response

Table 5-180 Response parameters

Parameter	Туре	Description
tags	Array of ResourceTag objects	Specifies tags. For details, see Table 5-181 .
sys_tags	Array of ResourceTag objects	Specifies system tags. For details, see Table 5-181.

Table 5-181 ResourceTag field description

Parameter	Туре	Description
key	String	Specifies the tag key.
value	String	Specifies the tag values.

Example Response

Returned Values

- Normal200
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because an internal service error occurred.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the system is currently unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See **Error Codes**.

5.10.3 Creating or Deleting a Tag

Function

This API is used to create or delete a tag.

Each AS group can have a maximum of 10 tags added to it.

URI

POST /autoscaling-api/v1/{project_id}/{resource_type}/{resource_id}/tags/action

Table 5-182 Parameter description

Parameter	Mandator y	Туре	Description
project_id	Yes	String	Specifies the project ID.
resource_type	Yes	String	Specifies the resource type. The option is as follows:
			scaling_group_tag : indicates that the resource type is AS groups.
resource_id	Yes	String	Resource ID

Request

Table 5-183 Request parameters

Parameter	Mandatory	Туре	Description
tags	Array of ResourceTa g objects	ResourceTa	Specifies the tag list. For details, see Table 5-184 .
		g objects	If action is set to delete , the tag structure cannot be missing, and the key cannot be left blank or an empty string.
action	Yes	String	Specifies the operation ID. The value is case-sensitive and can be any of the following:
		delete: indicates deleting a tag.	
			create: indicates creating a tag. If the same key value already exists, it will be overwritten.

Table 5-184 ResourceTag field de	escription
----------------------------------	------------

Parameter	Mandatory	Туре	Description
key	Yes	String	Specifies the tag key. Tag keys of a resource must be unique.
			A tag key contains a maximum of 36 characters. The character set is as follows: A-Z, a-z, 0-9, hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF).
value	No	String	Specifies the tag value. A tag value contains a maximum of 43 characters and can be left blank. The character set is as follows: A-Z, a-z, 0-9, periods (.), hyphens (-), underscores (_), and Unicode characters (\u4E00-\u9FFF).

Example Request

This example adds two tags (key = ENV15 and value = ENV15) and (key = ENV151 and value = ENV151) to the AS group with ID e5d27f5c-dd76-4a61-b4bc-a67c5686719a.

```
POST\ https://\{Endpoint\}/autoscaling-api/v1/\{project\_id\}/scaling\_group\_tag/e5d27f5c-dd76-4a61-b4bc-a67c5686719a/tags/action
```

Response

None

Example Response

None

Returned Values

Normal204

Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because an internal service error occurred.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the system is currently unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

Error Codes

See **Error Codes**.

5.10.4 Querying Resources by Tag

Function

This API is used to query resources in a project by tag.

By default, resources and resource tags are in descending order of their creation time.

URI

POST /autoscaling-api/v1/{project_id}/{resource_type}/resource_instances/action

Table 5-185 Parameter description

Parameter	Mandat ory	Туре	Description
project_id	Yes	String	Specifies the project ID.
resource_type	Yes	String	Specifies the resource type. An example value is scaling_group_tag.

Request

Table 5-186 Request parameters

Parameter	Mandatory	Туре	Description
tags	No	Array of Tag objects	Specifies filter criteria with tags included. A maximum of 10 keys can be contained. The structure body must be complete. For details, see Table 5-187 .
tags_any	No	Array of Tag objects	Specifies filter criteria with any tag included. A maximum of 10 keys can be contained. For details, see Table 5-187 .
not_tags	No	Array of Tag objects	Specifies filter criteria without tags included. A maximum of 10 keys can be contained. For details, see Table 5-187.
not_tags_any	No	Array of Tag objects	Specifies filter criteria without any tag included. A maximum of 10 keys can be contained. For details, see Table 5-187 .

Parameter	Mandatory	Туре	Description
limit	No	String	Specifies the maximum number of query records. The maximum value is 1,000, and the minimum value is 1. If action is set to count, this parameter is invalid. If action is set to filter, the default value is 1000.
marker	No	String	Marks the paging location (index position). You are advised to use the offset parameter to set the index position. Marks the paging location (resource ID or index location).
action	Yes	String	 Specifies the operation, which can be filter or count. filter: indicates that resources are filtered by tag and the resources meeting the search criteria are returned on pages. count: indicates that resources are searched by tag and the number of resources meeting the search criteria is returned.
offset	No	String	Specifies the index position. The query starts from the next image indexed by this parameter. The value must be a non-negative number. You do not need to specify this parameter when querying resources on the first page. When you query resources on subsequent pages, set offset to the location returned in the response body for the previous query. If the action value is count, this parameter is invalid. If the action value is filter, the default value is 0.
matches	No	Array of match objects	Specifies fuzzy search. For details, see Table 5-188 .

Table 5-187 Tag field description

Parameter	Mandatory	Туре	Description
key	Yes	String	Specifies the tag key. It contains a maximum of 36 Unicode characters. It cannot be left blank (This parameter is not verified in the search process.) A maximum of 10 keys are allowed and the key cannot be left blank or an empty string. Each key must be unique.
values	Yes	Array of strings	Specifies tag values. A value contains a maximum of 43 Unicode characters. A key contains a maximum of 10 values. Each value of the same key must be unique. • The asterisk (*) is reserved for the system. If the value starts with *, it indicates that fuzzy match is performed for the digits following *. The value cannot contain only asterisks (*). • If the values are null (not default), it indicates any_value (querying any value). The resources contain one or multiple values listed in values will

Table 5-188 match field description

Parameter	Mandatory	Туре	Description
key	Yes	String	Specifies the key based on which to query resources. The parameter value can only be resource_name.

Parameter	Mandatory	Туре	Description
value	Yes	String	Specifies the value. The value is a fixed dictionary value. A value contains a maximum of 255 Unicode characters. If the value is an empty string or resource_id, exact match is used.

Example Request

This example queries the details of AS groups of a tenant using the following search criteria: including tag (key = key1 and value = value), excluding tag (key = key2 and value = value2), index position 100, and maximum number of records 100.

```
POST https: //{Endpoint}/autoscaling-api/v1/{project_id}/scaling_group_tag/resource_instances/action

{
    "offset": "100",
    "limit": "100",
    "action": "filter",
    "matches": [{
        "key": "resource_name",
        "value": "resource1"
    }],
    "not_tags": [{
        "key": "key2",
        "values": ["value2"]
    }],
    "tags": [{
        "key": "key1",
        "values": ["value1"]
    }]
}
```

 This example shows how to query the number of AS groups for a tenant using the following search criteria: including the tag (key = key1 and value = value) and excluding the tag (key = key2 and value = value2).

```
POST https: //{Endpoint}/autoscaling-api/v1/{project_id}/scaling_group_tag/resource_instances/action
   "action": "count",
  "not_tags": [{
    "key": "key2",
      "values": ["value2"]
  }],
   "tags": [{
      "key": "key1",
      "values": ["value1"]
      "key": "key2",
      "values": ["value1",
"value2"]
  }],
   "matches": [{
      "key": "resource_name",
      "value": "resource1"
  }]
}
```

Response

Table 5-189 Response parameters

Parameter	Туре	Description
resources	Array of Resource objects	Specifies tag resources. For details, see Table 5-190 .
total_count	Integer	Specifies the total number of records. When action is set to count , only this parameter is returned. The values of resources and marker are not returned.
marker	String	Specifies the paging location identifier.

Table 5-190 Resource field description

Parameter	Туре	Description
resource_id	String	Specifies the resource ID.
resource_detai	String	Specifies the resource details.
tags	Array of ResourceTag objects	Specifies tags. If there is no tag, the field tags is taken as an empty array by default. For details, see Table 5-191 .
resource_nam e	String	Specifies the resource name. If there is no resource, this parameter is an empty string by default.

Table 5-191 ResourceTag field description

Parameter	Туре	Description
key	String	Specifies the tag key. It contains a maximum of 36 Unicode characters.
value	String	Specifies the tag value. It contains a maximum of 43 Unicode characters.

Example Response

• Example response when **action** is set to **filter**

```
{
    "resources": [{
        "resource_id": "64af4b6f-ec51-4436-8004-7a8f30080c87",
        "resource_detail": "SCALING_GROUP_TAG",
        "tags": [f
```

```
"key": "key1","value": "value1"
}],
    "resource_name": "as_scaling_group_1"
},
{
    "resource_id": "7122ef51-604b-40e7-b9b2-1de4cd78dc60",
    "resource_detail": "SCALING_GROUP_TAG",
    "tags": [{
        "key": "key1","value": "value1"
    }],
    "resource_name": "as_scaling_group_2"
}],
"marker": "2",
"total_count": 2
```

• Example response when **action** is set to **count**

```
"total_count": 1000
```

Returned Values

Normal

200

Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.

Returned Value	Description
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See Error Codes.

5.11 Planned Tasks

5.11.1 Creating a Planned Task

Function

This API is used to create a planned task for an AS group.

URI

POST /autoscaling-api/v1/{project_id}/scaling-groups/{scaling_group_id}/scheduled-tasks

Table 5-192 Parameter description

Parameter	Mandato ry	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_group_id	Yes	String	Specifies the AS group ID.

Request

Table 5-193 Request parameters

Parameter	Mandato ry	Туре	Description
name	Yes	String	Specifies the planned task name.
scheduled_policy	Yes	Object	Specifies the planned task policy. For details, see Table 5-194 .

Parameter	Mandato ry	Туре	Description
instance_number	Yes	Object	Specifies the instance number settings of the AS group. For details, see Table 5-195 .

Table 5-194 scheduled_policy field description

Parameter	Mandat ory	Туре	Description
start_time	No	String	Specifies the time when the valid period of the planned task starts. This parameter is valid only when recurrence_type is specified. The format is yyyy-MM-dd'T'HH:mm'Z'. If this parameter is left empty, the time when the task is successfully created is used by default.
end_time	No	String	Specifies the time when the valid period of the planned task ends. This parameter is valid and mandatory only if recurrence_type is specified. The format is yyyy-MM-dd'T'HH:mm'Z'.
launch_time	Yes	String	Specifies the time when the planned task is executed. The UTC time is used. If recurrence_type is left empty or null, the format of the execution time is yyyy-MM-dd'T'HH:mm'Z'. If recurrence_type is specified, the format of the execution time is HH:mm.
recurrence_type	No	String	If this parameter is left blank or null, the planned task is executed at a specified time point. If this parameter is set to DAILY , WEEKLY , or MONTHLY , the planned task is executed periodically by day, week, or month.

Parameter	Mandat ory	Туре	Description
recurrence_value	No	String	This parameter is mandatory only if recurrence_type is set to WEEKLY or MONTHLY. Multiple dates are separated by commas (,). When recurrence_type is set to WEEKLY, the value ranges from 1 to 7. If recurrence_type is set to MONTHLY, the value ranges from 1 to 31.

Table 5-195 instance_number field description

Parameter	Mandat ory	Туре	Description
max	No	Integer	Specifies the maximum number of instances in the AS group.
min	No	Integer	Specifies the minimum number of instances in the AS group.
desire	No	Integer	Specifies the expected number of instances in the AS group.

Example Request

This example creates a task scheduled to run at 17:00 every day for AS group **5bc3aa02-b83e-454c-aba1-4d2095c68f8b**. The action is to set the maximum number of instances to **10** and the minimum number of instances to **5**.

```
POST https://{Endpoint}/v1/{project_id}/scaling-groups/5bc3aa02-b83e-454c-aba1-4d2095c68f8b/scheduled-tasks

{
    "name": "as-scheduled-task-7a75",
    "scheduled_policy": {
        "start_time": "2015-12-14T03:34Z",
        "end_time": "2033-12-27T03:34Z",
        "launch_time": "17:00",
        "recurrence_type": "Daily"
    },
    "instance_number": {
        "max": 10,
        "min": 5
    }
}
```

Response

Table 5-196 Response parameters

Parameter	Mandat ory	Туре	Description
task_id	No	String	Specifies the planned task ID.

Example Response

```
"task_id": "0h327883-324n-4dzd-9c61-68d03ee191dd"
```

Returned Values

- Normal200
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication. Then, the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because an internal service error occurred.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.

Returned Value	Description
502 Bad Gateway	Failed to complete the request because the server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the system is currently unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See Error Codes.

5.11.2 Querying Planned Tasks

Function

This API is used to query the planned tasks of an AS group.

URI

GET /autoscaling-api/v1/{project_id}/scaling-groups/{scaling_group_id}/scheduled-tasks

Table 5-197 Parameter description

Parameter	Mandato ry	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_group_id	Yes	String	Specifies the AS group ID.
limit	No	Integer	Specifies the number of records to query.
marker	No	String	Specifies the marker for pagination query.

Request

None

Example Request

This example queries the planned tasks of an AS group.

GET https://{Endpoint}/v1/{project_id}/scaling-groups/{scaling_group_id}/scheduled-tasks

Response

Table 5-198 Response parameters

Parameter	Mandat ory	Туре	Description
page_info	No	Object	Specifies the pagination information. For details, see Table 5-199 .
scheduled_tasks	No	Array of objects	Specifies the list of planned tasks. For details, see Table 5-200 .

Table 5-199 page_info field description

Parameter	Mandat ory	Туре	Description
next_marker	No	String	Specifies the marker value of the next page.

Table 5-200 scheduled_tasks field description

Parameter	Mandat ory	Туре	Description
task_id	No	String	Specifies the planned task ID.
scaling_group_id	No	String	Specifies the AS group ID.
name	No	String	Specifies the planned task name.
scheduled_policy	No	Object	Specifies the planned task policy. For details, see Table 5-201 .
instance_number	No	Object	Specifies the instance number settings of the AS group. For details, see Table 5-202 .
create_time	No	String	Specified the creation time.
tenant_id	No	String	Specifies the tenant ID.
domain_id	No	String	Specifies the account ID.
update_time	No	String	Specifies the update time.

Table 5-201 scheduled_policy field description

Parameter	Mandat ory	Туре	Description
start_time	No	String	Specifies the time when the valid period of the planned task starts. This parameter is valid only when recurrence_type is specified. The format is yyyy-MM-dd'T'HH:mm'Z'. If this parameter is left empty, the time when the task is successfully created is used by default.
end_time	No	String	Specifies the time when the valid period of the planned task ends. This parameter is valid and mandatory only if recurrence_type is specified. The format is yyyy-MM-dd'T'HH:mm'Z'.
launch_time	Yes	String	Specifies the time when the planned task is executed. The UTC time is used. If recurrence_type is left empty or null, the format of the execution time is yyyy-MM-dd'T'HH:mm'Z'. If recurrence_type is specified, the format of the execution time is HH:mm.
recurrence_type	No	String	If this parameter is left blank or null, the planned task is executed at a specified time point. If this parameter is set to DAILY , WEEKLY , or MONTHLY , the planned task is executed periodically by day, week, or month.
recurrence_value	No	String	This parameter is mandatory only if recurrence_type is set to WEEKLY or MONTHLY. Multiple dates are separated by commas (,). When recurrence_type is set to WEEKLY, the value ranges from 1 to 7. If recurrence_type is set to MONTHLY, the value ranges from 1 to 31.

Table 5-202 instance_number field description

Parameter	Mandat ory	Туре	Description
max	No	Integer	Specifies the maximum number of instances in the AS group.
min	No	Integer	Specifies the minimum number of instances in the AS group.
desire	No	Integer	Specifies the expected number of instances in the AS group.

Example Response

```
{
   "page_info": {
      "next_marker": "xxxxx"
},
   "scheduled_tasks": [
   {
      "task_id": "fd7d63ce-8f5c-443e-b9a0-bef9386b23b3",
      "name": "task_01",
      "scheduled_policy": {
      "start_time": "2016-01-0T17:31Z",
      "end_time": "2016-02-08T17:31Z",
      "launch_time": "17:00",
      "recurrence_type": "Daily"
      },
      "scaling_group_id": "e5d27f5c-dd76-4a61-b4bc-a67c5686719a",
      "instance_number": {
            "max": 10
      }
    }
}
```

Returned Values

- Normal200
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.

Returned Value	Description
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication. Then, the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because an internal service error occurred.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the system is currently unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

See Error Codes.

5.11.3 Updating a Planned Task

Function

This API is used to update a planned task of an AS group.

URI

PUT /autoscaling-api/v1/{project_id}/scaling-groups/{scaling_group_id}/scheduled-tasks/{scheduled_task_id}

Table 5-203 Parameter description

Parameter	Mandato ry	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_group_id	Yes	String	Specifies the AS group ID.
scheduled_task_i d	Yes	String	Specifies the planned task.

Request

Table 5-204 Request parameters

Parameter	Mandato ry	Туре	Description
name	No	String	Specifies the planned task name.
scheduled_policy	No	Object	Specifies the planned task policy. For details, see Table 5-205 .
instance_number	No	Object	Specifies the instance number settings of the AS group. For details, see Table 5-206 .

Table 5-205 scheduled_policy field description

Parameter	Mandat ory	Туре	Description
start_time	No	String	Specifies the time when the valid period of the planned task starts. This parameter is valid only when recurrence_type is specified. The format is yyyy-MM-dd'T'HH:mm'Z'. If this parameter is left empty, the time when the task is successfully created is used by default.
end_time	No	String	Specifies the time when the valid period of the planned task ends. This parameter is valid and mandatory only if recurrence_type is specified. The format is yyyy-MM-dd'T'HH:mm'Z'.

Parameter	Mandat ory	Туре	Description
launch_time	Yes	String	Specifies the time when the planned task is executed. The UTC time is used. If recurrence_type is left empty or null, the format of the execution time is yyyy-MM-dd'T'HH:mm'Z'. If recurrence_type is specified, the format of the execution time is HH:mm.
recurrence_type	No	String	If this parameter is left blank or null, the planned task is executed at a specified time point. If this parameter is set to DAILY , WEEKLY , or MONTHLY , the planned task is executed periodically by day, week, or month.
recurrence_value	No	String	This parameter is mandatory only if recurrence_type is set to WEEKLY or MONTHLY. Multiple dates are separated by commas (,). When recurrence_type is set to WEEKLY, the value ranges from 1 to 7. If recurrence_type is set to MONTHLY, the value ranges from 1 to 31.

Table 5-206 instance_number field description

Parameter	Mandat ory	Туре	Description
max	No	Integer	Specifies the maximum number of instances in the AS group.
min	No	Integer	Specifies the minimum number of instances in the AS group.
desire	No	Integer	Specifies the expected number of instances in the AS group.

Example Request

This example updates the planned task

0h327883-324n-4dzd-9c61-68d03ee191dd by setting the maximum number of instances in the AS group to **10** and the minimum number of instances to **5** at 17:00 every day.

PUT https://{Endpoint}/v1/{project_id}/scaling-groups/xxxxxx/scheduled-tasks/0h327883-324n-4dzd-9c61-68d03ee191dd

```
{
    "name": "task_01",
    "scheduled_policy": {
        "start_time": "2016-01-08T17:31Z",
        "end_time": "2016-02-08T17:31Z",
        "launch_time": "17:00",
        "recurrence_type": "Daily"
    },
    "instance_number": {
        "max": 10,
        "min": 5
    }
}
```

Response

None

Example Response

None

Returned Values

- Normal204
- Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication. Then, the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because an internal service error occurred.

Returned Value	Description
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the server has received an invalid response.
503 Service Unavailable	Failed to complete the request because the system is currently unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

Error Codes

See Error Codes.

5.11.4 Deleting a Planned Task

Function

This API is used to delete a planned task of an AS group.

URI

DELETE /autoscaling-api/v1/{project_id}/scaling-groups/{scaling_group_id}/scheduled-tasks/{scheduled_task_id}

Table 5-207 Parameter description

Parameter	Mandato ry	Туре	Description
project_id	Yes	String	Specifies the project ID.
scaling_group_id	Yes	String	Specifies the AS group ID.
scheduled_task_i d	Yes	String	Specifies the planned task ID.

Request

None

Example Request

This example deletes the scheduled task whose ID is **906f73ff-56e8-41b2-a005-8157d0c60360**.

 $\label{lem:decomposition} DELETE\ https://{Endpoint}/v1/{project_id}/scaling_groups/{scaling_group_id}/scheduled-tasks/906f73ff-56e8-41b2-a005-8157d0c60360}$

Response

None

Example Response

None

Returned Values

Normal204

Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication. Then, the request can be processed.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because an internal service error occurred.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the server has received an invalid response.

Returned Value	Description
503 Service Unavailable	Failed to complete the request because the system is currently unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

Error Codes

See Error Codes.

5.12 API Version Query

5.12.1 Querying API Versions

Function

This interface is used to query all API versions of the AS service.

URI

GET /

Request

None

Example Request

This example queries all available API versions. GET https://{Endpoint}/

Response

Table 5-208 Response parameters

Parameter	Туре	Description
versions	Array of versions objects	Specifies the API versions.

Table 5-209 versions field description

Parameter	Туре	Description
id	String	Specifies the API version ID.

Parameter	Туре	Description
links	Array of links objects	Specifies the API URL. For details, see Table 5-210 .
min_version	String	Specifies the earliest supported API version number.
status	String	 Specifies the API version status. CURRENT: indicates a primary version. SUPPORTED: indicates an earlier version which is still supported. DEPRECATED: indicates a deprecated version which may be deleted later.
updated	String	Specifies the release date of an API version.
version	String	Specifies the latest supported API version number.

Table 5-210 links field description

Parameter	Туре	Description
href	String	Specifies the API Uniform Resource Locator (URL).
rel	String	Specifies the API URL dependency.

Example Response

```
"versions": [
   "id": "v1",
   "links": [
      "href": "https://as.XXX.mycloud.com/autoscaling-api/v1/", "rel": "self"
    }
  ],
"min_version": "",
  "status": "CURRENT",
"updated": "2016-06-30T00:00:00Z",
   "version": ""
   "id": "v2",
   "links": [
    {
    "href": "https://as.XXX.mycloud.com/autoscaling-api/v2/",
    }
  ],
"min_version": "",
   "status": "SUPPORTED",
   "updated": "2018-03-30T00:00:00Z",
   "version": ""
```

]

Returned Values

Normal200

Abnormal

Returned Value	Description
400 Bad Request	The server failed to process the request.
401 Unauthorized	You must enter the username and password to access the requested page.
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

Error Codes

See **Error Codes**.

5.12.2 Querying an API Version

Function

This interface is used to query a specified API version of the AS service.

URI

GET /{api_version}

Table 5-211 Parameter description

Parameter	Mandatory	Туре	Description
api_version	Yes	String	Specifies the ID of the AS API version.

Request

None

Example Request

This example queries the API version of V1.

GET https://{Endpoint}/v1

Response

Table 5-212 Response parameters

Parameter	Туре	Description
version	version object	Specifies a specified API version.

Table 5-213 version field description

Parameter	Туре	Description
id	String	Specifies the API version ID.
links	Array of links objects	Specifies the API URL. For details, see Table 5-214 .
min_version	String	Specifies the earliest supported API version number.

Parameter	Туре	Description		
status	String	Specifies the API version status.		
		CURRENT: indicates a primary version.		
		 SUPPORTED: indicates an earlier version which is still supported. 		
		DEPRECATED: indicates a deprecated version which may be deleted later.		
updated	String	Specifies the release date of an API version.		
version	String	Specifies the latest supported API version number.		

Table 5-214 links field description

Parameter	Туре	Description
href	String	Specifies the API Uniform Resource Locator (URL).
rel	String	Specifies the API URL dependency.

Example Response

Returned Values

- Normal200
- Abnormal

Returned Value	Description		
400 Bad Request	The server failed to process the request.		
401 Unauthorized	You must enter the username and password to access the requested page.		

Returned Value	Description
403 Forbidden	You are forbidden to access the requested page.
404 Not Found	The server could not find the requested page.
405 Method Not Allowed	You are not allowed to use the method specified in the request.
406 Not Acceptable	The response generated by the server could not be accepted by the client.
407 Proxy Authentication Required	You must use the proxy server for authentication to process the request.
408 Request Timeout	The request timed out.
409 Conflict	The request could not be processed due to a conflict.
500 Internal Server Error	Failed to complete the request because of an internal service error.
501 Not Implemented	Failed to complete the request because the server does not support the requested function.
502 Bad Gateway	Failed to complete the request because the request is invalid.
503 Service Unavailable	Failed to complete the request because the system is unavailable.
504 Gateway Timeout	A gateway timeout error occurred.

Error Codes

See **Error Codes**.

6 Application Examples

6.1 Example 1: Creating an AS Configuration

Scenarios

This section describes how to create an AS configuration by calling APIs. For details, see **Calling APIs**.

An AS configuration defines the specifications of the ECSs to be added to an AS group. The specifications include the ECS flavor, image, and disk size. You can use specifications of an existing ECS or create an AS configuration.

Constraints

- The AS configuration is decoupled from the AS group. An AS configuration can be used by multiple AS groups.
- Up to 100 AS configurations per account can be created by default.

Involved APIs

To create an AS configuration, you need to perform several operations, such as querying a user token, ECS flavors, and images. The following APIs are required:

- Obtaining a User Token: Determine the user token that can be used to authenticate the calling of other APIs.
- Querying Details About ECS Flavors: Determine the ECS flavor to be used to create the AS configuration.
- Querying Images: Determine the image for the AS configuration.
- Querying SSH Key Pairs: Set the login mode to key pair.
- **Creating an AS Configuration**: Create an AS configuration using the flavor and image you specify.
- Querying an AS Configuration: Verify the AS configuration creation.

Procedure

- **Step 1** Determine the user token that can be used to authenticate the calling of other APIs.
 - 1. View the user token. For details, see **Obtaining a User Token**.
 - 2. Obtain the value of **X-Subject-Token** in the response header.
- **Step 2** Determine the ECS flavor.
 - 1. View ECS flavors. For details, see **Querying Details About ECS Flavors**.
 - 2. Select a flavor based on site requirements and record the flavor ID.
- **Step 3** Determine the image.
 - 1. View images. For details, see Querying Images.
 - 2. Select an image based on site requirements and record the image ID.
- **Step 4** Set the login mode to **Key pair**.
 - 1. View SSH key pairs. For details, see Querying SSH Key Pairs.
 - 2. Select a key pair as required and record the key pair name.
- **Step 5** Create an AS configuration using the flavor and image you specify.
 - API

URI format: POST /autoscaling-api/v1/{project_id}/scaling_configuration For details about API request parameters, see **Creating an AS Configuration**.

• Example request

POST: https://{Endpoint}/autoscaling-api/v1/0605767c2e80d5762fd0c0146a10aaf2/scaling_configuration Obtain *{endpoint}* from **Regions and Endpoints**.

Body:

Example response

```
{
    "scaling_configuration_id": "f8327883-6a07-4497-9a61-68c03e8e72a2"
}
```

Step 6 Verify the AS configuration creation.

API

URI format: GET /autoscaling-api/v1/{project_id}/scaling_configuration/ {scaling_configuration_id}

For details, see **Querying an AS Configuration**.

Example request

GET: https://{Endpoint}/autoscaling-api/v1/0605767c2e80d5762fd0c0146a10aaf2/scaling_configuration/f8327883-6a07-4497-9a61-68c03e8e72a2

where

f8327883-6a07-4497-9a61-68c03e8e72a2 is the UUID of the created AS configuration.

Obtain {endpoint} from Regions and Endpoints.

Example response

```
"scaling_configuration": {
   "tenant": "0605767c2e80d5762fd0c0146a10aaf2",
   "scaling_configuration_id": "f8327883-6a07-4497-9a61-68c03e8e72a2",
   "scaling_configuration_name": " config_name_1",
   "instance_config": {
     "disk": [
           "size": 40,
           "volume_type": "SATA",
           "disk_type": "SYS"
           "size": 100,
           "volume_type": "SATA",
           "disk_type": "DATA"
     "adminPass": "***"
     "personality": null,
     "instance_name": null,
     "instance_id": null,
     "flavorRef": "103",
"imageRef": "627a1223-2ca3-46a7-8d5f-7aef22c74ee6",
"key_name": "keypair01",
     "public_ip": null,
     "user data": null,
     "metadata": {},
     "security_groups": null,
     "multi_flavor_priority_policy": "PICK_FIRST"
   'create time": "2015-07-23T01:04:07Z"
```

----End

6.2 Example 2: Creating an AS Group

Scenarios

This section describes how to create an AS group by calling APIs. For details, see Calling APIs.

An AS group consists of a collection of instances that apply to the same scenario. It is the basis for enabling or disabling AS policies and performing scaling actions. An AS group specifies parameters, such as the maximum number of instances, expected number of instances, minimum number of instances, VPC, subnet, and load balancing.

Constraints

- Up to 10 AS groups per account can be created by default.
- If ELB is configured, AS automatically binds or unbinds a load balancer to or from an instance when the instance is added or removed from the AS group.
- If an AS group uses ELB health check, the listening ports on the load balancers must be enabled for the instances in the AS group. Enable the listening ports in security groups. For details, see Adding a Security Group Rule.

Involved APIs

To create an AS group, you need to perform several operations, such as querying a user token, security groups, and AS configurations. The following APIs are required:

- Obtaining a User Token: Determine the user token that can be used to authenticate the calling of other APIs.
- Querying VPCs: Determine the VPC for the ECSs in the AS group to be created.
- Querying Security Groups: Determine the security group to which the ECSs in the AS group will be added.
- Querying Subnets: Determine the subnet for the ECSs in the AS group.
- Querying AS configurations: Determine the AS configuration of the AS group.
- Querying AZs: Determine the AZ where the AS group to be created is located.
- Creating an AS Group: Create an AS group using the VPC and AS configuration you specify.
- Querying an AS Group: Verify the AS group creation.

Procedure

- **Step 1** Determine the user token that can be used to authenticate the calling of other APIs.
 - 1. View the user token. For details, see **Obtaining a User Token**.
 - 2. Obtain the value of **X-Subject-Token** in the response header.
- **Step 2** Determine the VPC.
 - 1. View VPCs. For details, see Querying VPCs.
 - 2. Select a VPC based on site requirements and record the VPC ID.
- **Step 3** Determine the security group.
 - 1. View security groups. For details, see **Querying Security Groups**.
 - 2. Select a security group based on site requirements and record the security group ID.
- **Step 4** Determine the subnet.
 - View subnets in the specified VPC based on VPC ID. For details, see Querying Subnets.

Select a subnet based on site requirements and record the subnet ID. 2.

Step 5 Determine the AS configuration.

- View AS configurations.
 - API

URI format: GET /autoscaling-api/v1/{project id}/scaling configuration For details about the API request parameters, see Querying AS Configurations.

Example request

GET: https://{Endpoint}/autoscalingapi/v1/0605767c2e80d5762fd0c0146a10aaf2/scaling_configuration? start number=0&limit=10

Obtain {endpoint} from Regions and Endpoints.

Example response

```
"limit": 20,
"total_number": 2,
"start_number": 0,
"scaling_configurations": [
      "tenant": "ce061903a53545dcaddb300093b477d2",
      "scaling_configuration_id": "6afe46f9-7d3d-4046-8748-3b2a1085ad86",
      "scaling_configuration_name": " config_name_1",
      "instance_config": {
         "disk": [
           {
              "size": 40,
              "volume_type": "SATA",
              "disk_type": "SYS"
              "size": 100.
              "volume_type": "SATA",
              "disk_type": "DATA"
           }
        ],
         "personality": null,
         "instance_name": null,
        "instance id": null,
        "flavorRef": "103",
        "imageRef": "37ca2b35-6fc7-47ab-93c7-900324809c5c", "key_name": "keypair01",
        "public_ip": null,
        "user_data": null,
         "metadata": {},
        "security_groups": [{
            "id": "6c22a6c0-b5d2-4a84-ac56-51090dcc33be"
        }],
      "create_time": "2015-07-23T01:04:07Z"
  }
]
```

Select an AS configuration based on site requirements and record the AS configuration ID.

Step 6 Determine the AZ.

View AZs. For details, see Querying AZs.

2. Select an AZ as required and record the AZ name.

Step 7 Create an AS group using the VPC and AS configuration you specify.

API

URI format: POST /autoscaling-api/v1/{project_id}/scaling_group For details about the API request parameters, see Creating an AS Group.

• Example request

POST: https://{Endpoint}/autoscaling-api/v1/0605767c2e80d5762fd0c0146a10aaf2/scaling_group Obtain *{endpoint}* from **Regions and Endpoints**.

Body:

Example response

```
{
    "scaling_group_id": "a8327883-6b07-4497-9c61-68d03ee193a1"
}
```

Step 8 Verify the AS group creation.

API

URI format: GET /autoscaling-api/v1/{project_id}/scaling_group/ {scaling_group_id}

For details about the API request parameters, see Querying an AS Group.

Example request

GET: https://{Endpoint}/autoscalingapi/v1/0605767c2e80d5762fd0c0146a10aaf2/scaling_group/ a8327883-6b07-4497-9c61-68d03ee193a1

where

a8327883-6b07-4497-9c61-68d03ee193a1 is the UUID of the created AS configuration.

Obtain {endpoint} from Regions and Endpoints.

Example response

```
"id": "076ee2ff-f23e-4338-b8ac-1bc7278532d5"
     }
"available_zones": [
    "XXXa",
    "XXXb"
"detail": null,
"scaling_group_name": "api_gateway_modify",
"scaling_group_id": "d4e50321-3777-4135-97f8-9f5e9714a4b0",
"scaling group status": "INSERVICE",
"scaling_configuration_id": "53579851-3841-418d-a97b-9cecdb663a90",
"scaling_configuration_name": "press",
"current_instance_number": 7,
"desire_instance_number": 8,
"min_instance_number": 0,
"max_instance_number": 100,
"cool down time": 900,
"lb_listener_id": null,
"security_groups": [
     "id": "23b7b999-0a30-4b48-ae8f-ee201a88a6ab"
  }
"create_time": "2015-09-01T08:36:10Z",
"vpc_id": "3e22f934-800d-4bb4-a588-0b9a76108190",
"health_periodic_audit_method": "NOVA_AUDIT",
"health_periodic_audit_time": 5,
"health_periodic_audit_grace_period": 600,
"instance_terminate_policy": "OLD_CONFIG_OLD_INSTANCE",
"is_scaling": true,
"delete_publicip": false,
"notifications": null,
"enterprise_project_id": "c92b1a5d-6f20-43f2-b1b7-7ce35e58e413",
"activity_type": "MODIFY_ELB",
"multi_az_priority_policy": "PICK_FIRST"
```

----End

6.3 Example 3: Enabling an AS Group

Scenarios

This section describes how to enable an AS group by calling APIs. For details, see Calling APIs.

An AS group consists of a collection of instances that apply to the same scenario. It is the basis for enabling or disabling AS policies and performing scaling actions.

Only enabled AS groups support scaling actions.

Involved APIs

- Obtaining a User Token: Determine the user token that can be used to authenticate the calling of other APIs.
- Querying AS Groups: Determine the AS group to be enabled.
- Enabling or Disabling an AS Group: Enable the AS group you specify.

Procedure

- **Step 1** Determine the user token that can be used to authenticate the calling of other APIs.
 - 1. View the user token. For details, see **Obtaining a User Token**.
 - 2. Obtain the value of **X-Subject-Token** in the response header.
- **Step 2** Determine the AS group.
 - 1. View AS groups.
 - API
 URI format: GET /autoscaling-api/v1/{project_id}/scaling_group
 For details, see Querying AS Groups.
 - Example request

This example shows how to query AS groups with AS configuration ID 1d281494-6085-4579-b817-c1f813be835f.

GET https://{Endpoint}/autoscaling-api/v1/0605767c2e80d5762fd0c0146a10aaf2/scaling_group? scaling_configuration_id=1d281494-6085-4579-b817-c1f813be835f Obtain {endpoint} from Regions and Endpoints.

- Example response

```
"limit": 20,
"scaling_groups": [
     "networks": [
       {
          "id": "a8327883-6b07-4497-9c61-68d03ee193a",
          "ipv6_enable": true,
          "ipv6_bandwidth":
             "id": "076ee2ff-f23e-4338-b8ac-1bc7278532d5"
       }
     "available_zones": [
       "XXXa",
       "XXXb"
    ],
"detail": null,
     "scaling_group_name": "as-group-test",
     "scaling_group_id": "77a7a397-7d2f-4e79-9da9-6a35e2709150",
     "scaling_group_status": "INSERVICE",
     "scaling_configuration_id": "1d281494-6085-4579-b817-c1f813be835f",
     "scaling_configuration_name": "healthCheck",
     "current_instance_number": 0,
     "desire_instance_number": 1,
     "min_instance_number": 0,
     "max_instance_number": 500,
     "cool_down_time": 300,
     "lb_listener_id": "f06c0112570743b51c0e8fbe1f235bab",
     "security_groups": [
          "id": "8a4b1d5b-0054-419f-84b1-5c8a59ebc829"
       }
     "create_time": "2015-07-23T02:46:29Z",
     "vpc id": "863ccae2-ee85-4d27-bc5b-3ba2a198a9e2",
     "health_periodic_audit_method": "ELB_AUDIT",
     "health_periodic_audit_time": 5,
```

```
"health_periodic_audit_grace_period": 600,

"instance_terminate_policy": "OLD_CONFIG_OLD_INSTANCE",

"is_scaling": false,

"delete_publicip": false,

"enterprise_project_id": "c92b1a5d-6f20-43f2-b1b7-7ce35e58e413",

"multi_az_priority_policy": "PICK_FIRST"

}

],

"total_number": 1,

"start_number": 0
}
```

2. Select an AS group and record the AS group ID.

Step 3 Enable the specified AS group.

API

URI format: POST /autoscaling-api/v1/{project_id}/scaling_group/ {scaling_group_id}/action

For details, see **Enabling or Disabling an AS Group**.

Example request

```
POST: https://{Endpoint}/autoscaling-
api/v1/0605767c2e80d5762fd0c0146a10aaf2/scaling_group/
77a7a397-7d2f-4e79-9da9-6a35e2709150/action
```

Obtain {endpoint} from Regions and Endpoints.

Body:

```
{
    "action": "resume"
}
```

Example response

The HTTP status code **204** is returned.

----End

6.4 Example 4: Creating an AS Policy

Scenarios

This section describes how to create an AS policy by calling APIs. For details, see Calling APIs.

An AS policy specifies a condition for triggering a scaling action. When the trigger condition is met, a scaling action occurs.

Involved APIs

Creating an AS policy involves the following APIs:

- **Obtaining a User Token**: Determine the user token that can be used to authenticate the calling of other APIs.
- Querying AS Groups: Determine the AS group for which the AS policy is created.
- Creating an AS Policy: Create a policy for the specified AS group.

Querying AS Policy Details: Verify the AS policy creation.

Procedure

- **Step 1** Determine the user token that can be used to authenticate the calling of other APIs.
 - 1. View the user token. For details, see **Obtaining a User Token**.
 - 2. Obtain the value of **X-Subject-Token** in the response header.
- **Step 2** Determine the AS group.
 - 1. View AS groups.
 - API
 URI format: GET /autoscaling-api/v1/{project_id}/scaling_group
 For details, see Querying AS Groups.
 - Example request
 GET: https://{Endpoint}/autoscaling-api/v1/0605767c2e80d5762fd0c0146a10aaf2/scaling_group
 Obtain {endpoint} from Regions and Endpoints.
 - Example response

```
"limit": 20,
"scaling_groups": [
     "networks": [
          "id": "a8327883-6b07-4497-9c61-68d03ee193a",
          "ipv6 enable": true,
          "ipv6_bandwidth":
          {
             "id": "076ee2ff-f23e-4338-b8ac-1bc7278532d5"
       }
     "available zones": [
       "XXXa",
    ],
"detail": null,
     "scaling_group_name": "as-group-test",
     "scaling_group_id": "77a7a397-7d2f-4e79-9da9-6a35e2709150",
     "scaling group status": "INSERVICE",
     "scaling_configuration_id": "1d281494-6085-4579-b817-c1f813be835f",
     "scaling_configuration_name": "healthCheck",
     "current instance number": 0,
     "desire_instance_number": 1,
     "min_instance_number": 0,
     "max_instance_number": 500,
     "cool_down_time": 300,
     "lb_listener_id": "f06c0112570743b51c0e8fbe1f235bab",
     "security_groups": [
       {
          "id": "8a4b1d5b-0054-419f-84b1-5c8a59ebc829"
       }
     ],
     "create_time": "2015-07-23T02:46:29Z",
     "vpc_id": "863ccae2-ee85-4d27-bc5b-3ba2a198a9e2",
     "health_periodic_audit_method": "ELB_AUDIT",
     "health_periodic_audit_time": 5,
     "health_periodic_audit_grace_period": 600,
     "instance_terminate_policy": "OLD_CONFIG_OLD_INSTANCE",
```

```
"is_scaling": false,
    "delete_publicip": false,
    "enterprise_project_id": "c92b1a5d-6f20-43f2-b1b7-7ce35e58e413",
    "multi_az_priority_policy": "PICK_FIRST"
    }
],
"total_number": 1,
"start_number": 0
}
```

2. Select an AS group and record the AS group ID.

Step 3 Create an AS policy for the selected AS group.

API

URI format: POST /autoscaling-api/v1/{project_id}/scaling_policy For details, see **Creating an AS Policy**.

Example request

This example shows how to create a periodic AS policy named **as-policy-7a75**. The policy takes effect from 2015-12-14T03:34Z through 2015-12-27T03:34Z. During this period, one instance will be added to AS group with ID **5bc3aa02-b83e-454c-aba1-4d2095c68f8b** at 16:00 every day.

POST: https://{Endpoint}/autoscaling-api/v1/0605767c2e80d5762fd0c0146a10aaf2/scaling_policy

Obtain {endpoint} from Regions and Endpoints.

Body:

```
{
    "scaling_policy_name": "as-policy-7a75",
    "scaling_policy_action": {
        "operation": "ADD",
        "instance_number": 1
    },
    "cool_down_time": 900,
    "scheduled_policy": {
        "launch_time": "16:00",
        "recurrence_type": "Daily",
        "start_time": "2015-12-14T03:34Z",
        "end_time": "2015-12-27T03:34Z"
    },
    "scaling_policy_type": "RECURRENCE",
    "scaling_group_id": "5bc3aa02-b83e-454c-aba1-4d2095c68f8b"
}
```

Example response

```
{
    "scaling_policy_id": "0h327883-324n-4dzd-9c61-68d03ee191dd"
}
```

Step 4 Verify the AS policy creation.

API

URI format: GET /autoscaling-api/v1/{project_id}/scaling_policy/ {scaling_policy_id}

For details, see **Querying an AS Policy**.

Example request

This example shows how to query details about the AS policy with ID **0h327883-324n-4dzd-9c61-68d03ee191dd**.

GET: https://{Endpoint}/autoscalingapi/v1/0605767c2e80d5762fd0c0146a10aaf2/scaling_policy/ fd7d63ce-8f5c-443e-b9a0-bef9386b23b3

Obtain {endpoint} from Regions and Endpoints.

Example response

```
{
    "scaling_policy": {
        "scaling_policy_id": "fd7d63ce-8f5c-443e-b9a0-bef9386b23b3",
        "scaling_group_id": "e5d27f5c-dd76-4a61-b4bc-a67c5686719a",
"scaling_policy_name": "Scheduled 1",
        "scaling_policy_type": "SCHEDULED",
        "scheduled_policy": {
            "launch_time": "2015-07-24T01:21Z"
        },
        "cool_down_time": 300,
        "scaling_policy_action": {
            "operation": "REMOVE",
            "instance_number": 1
        },
        "policy_status": "INSERVICE",
        "create_time": "2015-07-24T01:09:30Z"
      }
}
```

----End

6.5 Example 5: Performing Operations on Instances in Batches

Scenarios

This section describes how to perform operations on instances in batches by calling APIs. For details, see **Calling APIs**.

An instance is an ECS in an AS group. AS allows you to add or remove instances to or from an AS group in batches, configure instance protection or cancel the configuration for the instances in an AS group in batches, and set the standby mode or cancel the setting for the instances in an AS group in batches.

Constraints

- After instances are removed from an AS group, the number of instances in the AS group cannot be less than the minimum number of instances.
- After instances are added to an AS group, the number of instances in the AS group cannot be greater than the maximum number of instances.
- Instances can be added to an AS group only when the AS group is in the **INSERVICE** state and has no scaling action in progress.
- Instances can be removed from an AS group only when no scaling action is in progress. Only instances in INSERVICE state can be removed from an AS group.
- To add instances to an AS group, ensure that the AZ of the instances must be within that of the AS group and that the instances are in the same VPC as the AS group.

Involved APIs

- Obtaining a User Token: Determine the user token that can be used to authenticate the calling of other APIs.
- Querying AS Groups: Determine the AS group in which the instances will be operated in batches.
- Querying Instances in an AS Group: Determine the instances to be operated in batches in the specified AS group.
- **Performing Operations on Instances in Batches**: Remove the instances from the AS group in a batch.

Procedure

- **Step 1** Determine the user token that can be used to authenticate the calling of other APIs.
 - 1. View the user token. For details, see **Obtaining a User Token**.
 - 2. Obtain the value of **X-Subject-Token** in the response header.
- **Step 2** Determine the AS group.
 - 1. View AS groups.
 - API

URI format: GET /autoscaling-api/v1/{project_id}/scaling_group For details, see **Querying AS Groups**.

Example request

GET: https://{Endpoint}/autoscaling-api/v1/0605767c2e80d5762fd0c0146a10aaf2/scaling_group

Obtain {endpoint} from Regions and Endpoints.

Example response

```
"limit": 20,
"scaling_groups": [
     "networks": [
          "id": "a8327883-6b07-4497-9c61-68d03ee193a",
          "ipv6_enable": true,
          "ipv6_bandwidth":
             "id": "076ee2ff-f23e-4338-b8ac-1bc7278532d5"
       }
     ],
     "available_zones": [
        "XXXa",
        "XXXb"
     ],
"detail": null,
     "scaling_group_name": "as-group-test",
     "scaling_group_id": "77a7a397-7d2f-4e79-9da9-6a35e2709150",
     "scaling_group_status": "INSERVICE",
     "scaling_configuration_id": "1d281494-6085-4579-b817-c1f813be835f",
     "scaling_configuration_name": "healthCheck",
     "current_instance_number": 0,
     "desire instance number": 1,
     "min_instance_number": 0,
     "max instance number": 500,
```

```
"cool_down_time": 300,
      "lb_listener_id": "f06c0112570743b51c0e8fbe1f235bab",
      "security_groups": [
           "id": "8a4b1d5b-0054-419f-84b1-5c8a59ebc829"
        }
      "create_time": "2015-07-23T02:46:29Z",
      "vpc_id": "863ccae2-ee85-4d27-bc5b-3ba2a198a9e2",
      "health_periodic_audit_method": "ELB_AUDIT",
      "health_periodic_audit_time": 5,
      "health_periodic_audit_grace_period": 600,
      "instance_terminate_policy": "OLD_CONFIG_OLD_INSTANCE",
      "is_scaling": false,
      "delete_publicip": false,
      "enterprise_project_id": "c92b1a5d-6f20-43f2-b1b7-7ce35e58e413",
      "multi_az_priority_policy": "PICK_FIRST"
"total number": 1,
"start_number": 0
```

2. Select an AS group and record the AS group ID.

Step 3 Determine the instances.

- 1. View the instances in the specified AS group.
 - AP

URI format: GET /autoscaling-api/v1/{project_id}/scaling_group_instance/ {scaling_group_id}/list

For details, see **Querying Instances in an AS Group**.

Example request

This example shows how to query enabled, healthy instances in the AS group with ID **e5d27f5c-dd76-4a61-b4bc-a67c5686719a**.

GET: https://{Endpoint}/autoscalingapi/v1/0605767c2e80d5762fd0c0146a10aaf2/scaling_group_instance/ e5d27f5c-dd76-4a61-b4bc-a67c5686719a/list? life_cycle_state=INSERVICE&health_status=NORMAL

Obtain {endpoint} from Regions and Endpoints.

Example response

2. Select instances and record their IDs.

Step 4 Remove the instances from the AS group in a batch.

API

URI format: POST /autoscaling-api/v1/{project_id}/scaling_group_instance/ {scaling_group_id}/action

For details, see **Batch Managing Instances**.

• Example request

This example shows how to remove and delete instances with IDs instance_id_1 and instance_id_2 from the AS group with ID e5d27f5c-dd76-4a61-b4bc-a67c5686719a in a batch.

POST: https://{Endpoint}/autoscaling-api/v1/0605767c2e80d5762fd0c0146a10aaf2/scaling_group_instance/e5d27f5c-dd76-4a61-b4bc-a67c5686719a/action

Obtain {endpoint} from Regions and Endpoints.

Body:

```
{
  "action": "REMOVE",
  "instances_id": [
  "instance_id_1",
  "instance_id_2"
],
  "instance_delete": "yes"
}
```

• Example response

The HTTP status code 204 is returned.

----End

Permissions and Supported Actions

7.1 Introduction

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

By default, new IAM users do not have any permissions assigned. You need to add a user to one or more groups, and assign policies or roles to these groups. The users then inherit permissions from the groups and can perform specified operations on cloud services based on the permissions.

You can grant users permissions by using **roles** and **policies**. Roles: A type of coarse-grained authorization mechanism that defines permissions related to user responsibilities. Policies define API-based permissions for operations on specific resources under certain conditions, allowing for more fine-grained, secure access control of cloud resources.

Policy-based authorization is useful if you want to allow or deny access to an API.

An account has all of the permissions required to call all APIs, but IAM users must have the required permissions specifically assigned. The required permissions are determined by the actions supported by the API. Only users with the policies allowing for those actions can call the API successfully. For example, if an IAM user wants to query AS groups using an API, the user must have been granted permissions that allow the **as:groups:list** action.

Supported Actions

Operations supported by a fine-grained policy are specific to APIs. The following describes the headers of the action tables provided in this chapter:

- Permissions: defined by actions in a custom policy.
- APIs: REST APIs that can be called by a user who has been granted specific permissions

- Actions: specific operations that are allowed or denied
- Dependencies: actions which a specific action depends on. When allowing an action for a user, you also need to allow any existing action dependencies for that user.
- IAM projects/Enterprise projects: the authorization scope of a custom policy. A custom policy can be applied to IAM projects or enterprise projects or both. Policies that contain actions for both IAM and enterprise projects can be used and take effect for both IAM and Enterprise Management. Policies that contain actions only for IAM projects can be used and applied to IAM only. Administrators can check whether an action supports IAM projects or enterprise projects in the action list. "√" indicates that the action supports the project and "×" indicates that the action does not support the project. For details about the differences between IAM and enterprise management, see What Are the Differences Between IAM and Enterprise Management?

AS supports the following actions in custom policies:

- AS group actions, including actions supported by all AS group APIs, such as the APIs for creating, modifying, and querying an AS group.
- AS configuration actions, including actions supported by all AS configuration APIs, such as the APIs for creating, deleting, and querying AS configurations.
- **Instance** actions, including actions supported by all instance APIs, such as the APIs for querying the instances in an AS group and removing instances from an AS group.
- AS policy actions, including actions supported by all AS policy APIs, such as the APIs for creating and modifying an AS policy.
- AS policy execution log actions, including the action supported by the API for querying AS policy execution logs.
- **Scaling action log** actions, including actions supported by the APIs for querying scaling action logs.
- Quota actions, including actions supported by all AS quota APIs, such as the API for querying AS quotas.
- **Notification** actions, including actions supported by all AS notification APIs, such as the API for querying notifications of an AS group.
- Lifecycle hook actions, including actions supported by all lifecycle hook APIs, such as the API for creating a lifecycle hook.
- **Tag management** actions, including actions supported by all AS tag APIs, such as the API for querying tags.

7.2 AS Groups

Permission	API	Action	IAM Project	Enterprise Project
Creating an AS group	POST / autoscaling- api/v1/ {project_id}/ scaling_grou p	as:groups:cr eate	√	√
Querying AS groups	GET / autoscaling- api/v1/ {project_id}/ scaling_grou p	as:groups:li st	√	√
Querying AS group details	GET / autoscaling- api/v1/ {project_id}/ scaling_grou p/ {scaling_grou p_id}	as:groups:g et	√	√
Modifying an AS group	PUT / autoscaling- api/v1/ {project_id}/ scaling_grou p/ {scaling_grou p_id}	as:groups:u pdate	√	√
Deleting an AS group	DELETE / autoscaling- api/v1/ {project_id}/ scaling_grou p/ {scaling_grou p_id}	as:groups:d elete	√	√

Permission	API	Action	IAM Project	Enterprise Project
Enabling or disabling an AS group	POST / autoscaling- api/v1/ {project_id}/ scaling_grou p/ {scaling_grou p_id}/action	as:groups:a ction	√	√

7.3 AS Configurations

Permission	API	Action	IAM Project	Enterprise Project
Creating an AS configuration	POST / autoscaling- api/v1/ {project_id}/ scaling_confi guration	as:configs:c reate	√	√
Querying AS configurations	GET / autoscaling- api/v1/ {project_id}/ scaling_confi guration	as:configs:li st	√	√
Querying AS configuration details	GET / autoscaling- api/v1/ {project_id}/ scaling_confi guration/ {scaling_confi iguration_id}	as:configs:g et	√	√
Deleting an AS configuration	DELETE / autoscaling- api/v1/ {project_id}/ scaling_confi guration/ {scaling_confi iguration_id}	as:configs:d elete	√	√

Permission	API	Action	IAM Project	Enterprise Project
Batch deleting AS configurations	POST / autoscaling- api/v1/ {project_id}/ scaling_confi gurations	as:configs:b atchDelete	√	√

7.4 Instances

Permission	API	Action	IAM Project	Enterprise Project
Querying instances in an AS group	GET / autoscaling- api/v1/ {project_id}/ scaling_grou p_instance/ {scaling_grou p_id}/list	as:instances :list	√	√
Removing instances from an AS group	DELETE / autoscaling- api/v1/ {project_id}/ scaling_grou p_instance/ {instance_id}	as:instances :delete	√	√
Performing operations on instances in batches	POST / autoscaling- api/v1/ {project_id}/ scaling_grou p_instance/ {scaling_grou p_id}/action	as:instances :batchActio n	√	√

7.5 AS Policies

Permission	API	Action	IAM Project	Enterprise Project
Creating an AS policy	POST / autoscaling- api/v1/ {project_id}/ scaling_policy	as:policies:c reate	√	✓
Modifying an AS policy	PUT / autoscaling- api/v1/ {project_id}/ scaling_policy / {scaling_polic y_id}	as:policies:u pdate	√	√
Querying AS policies	GET / autoscaling- api/v1/ {project_id}/ scaling_policy / {scaling_grou p_id}/list	as:policies:li st	√	√
Querying AS policy details	GET / autoscaling- api/v1/ {project_id}/ scaling_policy / {scaling_polic y_id}	as:policies:g et	√	√
Executing, enabling, or disabling an AS policy	POST / autoscaling- api/v1/ {project_id}/ scaling_policy / {scaling_polic y_id}/action	as:policies:a ction	√	√

Permission	API	Action	IAM Project	Enterprise Project
Deleting an AS policy	DELETE / autoscaling- api/v1/ {project_id}/ scaling_policy / {scaling_polic y_id}	as:policies:d elete	√	√
Creating an AS policy	POST / autoscaling- api/v2/ {project_id}/ scaling_policy	as:policies:c reate	√	√
Modifying an AS policy	PUT / autoscaling- api/v2/ {project_id}/ scaling_policy / {scaling_polic y_id}	as:policies:u pdate	√	√
Querying AS policies	GET / autoscaling- api/v2/ {project_id}/ scaling_policy / {scaling_reso urce_id}/list	as:policies:li st	√	√

Permission	API	Action	IAM Project	Enterprise Project
Querying AS policies	GET / autoscaling- api/v2/ {project_id}/ scaling_polic y{? scaling_resou rce_id, scaling_resou rce_type ,scal ing_policy_na me, scaling_policy _id,scaling_p olicy_type,sta rt_number,li mit,sort_by,or der,enterprise _project_id}	as:groups:g et as:policies:li st	√	✓
Querying AS policy details	GET / autoscaling- api/v2/ {project_id}/ scaling_policy / {scaling_polic y_id}	as:policies:g et	√	√
Performing operations on AS policies in batches	POST / autoscaling- api/v1/ {project_id}/ scaling_polici es/action	as:policies:b atchAction	√	√

7.6 AS Policy Execution Logs

Permission	API	Action	IAM Project	Enterprise Project
Querying AS policy execution logs	GET / autoscaling- api/v1/ {project_id}/ scaling_policy _execute_log/ {scaling_polic y_id}	as:policyExe cuteLogs:lis t	√	√

7.7 Scaling Action Logs

Permission	API	Action	IAM Project	Enterprise Project
Querying scaling action logs	GET / autoscaling- api/v1/ {project_id}/ scaling_activit y_log/ {scaling_grou p_id}	as:acivityLo gs:list	√	√
Querying scaling action logs (V2)	GET / autoscaling- api/v2/ {project_id}/ scaling_activit y_log/ {scaling_grou p_id}	as:acivityLo gs:list	√	√

7.8 Quotas

Permission	API	Action	IAM Project	Enterprise Project
Querying AS quotas	GET / autoscaling- api/v1/ {project_id}/ quotas	as:quotas:g et	√	√
Querying AS policy and instance quotas	GET / autoscaling- api/v1/ {project_id}/ quotas/ {scaling_grou p_id}	as:quotas:g et	√	√

7.9 Notifications

Permission	API	Action	IAM Project	Enterprise Project
Configuring notifications for an AS group	PUT / autoscaling- api/v1/ {project_id}/ scaling_notific ation/ {scaling_grou p_id}	as:notificati ons:set	√	√
Querying notifications of an AS group	GET / autoscaling- api/v1/ {project_id}/ scaling_notific ation/ {scaling_grou p_id}	as:notificati ons:list	√	✓

Permission	API	Action	IAM Project	Enterprise Project
Deleting a notification of an AS group	DELETE / autoscaling- api/v1/ {project_id}/ scaling_notific ation/ {scaling_grou p_id}/ {topic_urn}	as:notificati ons:delete	√	✓

7.10 Lifecycle Hooks

Permission	API	Action	IAM Project	Enterprise Project
Creating a lifecycle hook	POST / autoscaling- api/v1/ {project_id}/ scaling_lifecyc le_hook/ {scaling_grou p_id}	as:lifecycle Hooks:crea te	√	√
Querying lifecycle hooks	GET / autoscaling- api/v1/ {project_id}/ scaling_lifecyc le_hook/ {scaling_grou p_id}/list	as:lifecycle Hooks:list	√	✓
Querying lifecycle hook details	GET / autoscaling- api/v1/ {project_id}/ scaling_lifecyc le_hook/ {scaling_grou p_id}/ {lifecycle_hoo k_name}	as:lifecycle Hooks:get	√	√

Permission	API	Action	IAM Project	Enterprise Project
Modifying a lifecycle hook	PUT / autoscaling- api/v1/ {project_id}/ scaling_lifecyc le_hook/ {scaling_grou p_id}/ {lifecycle_hoo k_name}	as:lifecycle Hooks:upd ate	√	√
Calling back an instance lifecycle hook	PUT / autoscaling- api/v1/ {project_id}/ scaling_instan ce_hook/ {scaling_grou p_id}/callback	as:instance Hooks:actio n	√	√
Querying instance suspension	GET / autoscaling- api/v1/ {project_id}/ scaling_instan ce_hook/ {scaling_grou p_id}/list	as:instance Hooks:list	√	√
Deleting a lifecycle hook	DELETE / autoscaling- api/v1/ {project_id}/ scaling_lifecyc le_hook/ {scaling_grou p_id}/ {lifecycle_hoo k_name}	as:lifecycle Hooks:dele te	√	✓

7.11 Tags

Permission	API	Action	IAM Project	Enterprise Project
Querying tags	GET / autoscaling- api/v1/ {project_id}/ {resource_type }/tags	as:tags:list	√	×
Querying tags of a resource	GET / autoscaling- api/v1/ {project_id}/ {resource_type }/ {resource_id}/ tags	as:tags:get	√	×
Updating or deleting a tag	POST / autoscaling- api/v1/ {project_id}/ {resource_type }/ {resource_id}/ tags/action	as:tags:set	√	×
Querying resources	POST / autoscaling- api/v1/ {project_id}/ {resource_type }/ resource_insta nces/action	as:tagReso urces:list	√	×



A.1 AS Metrics

Function

This section describes metrics reported by AS to Cloud Eye as well as their namespaces and dimensions. You can use APIs provided by Cloud Eye to view the AS metrics and the alarms generated by Cloud Eye for AS.

Namespace

SYS.AS

Metrics

Metric	Name	Description	Value Range	Remarks
cpu_util	CPU Usage	Average CPU usage of all instances in a monitored object	≥ 0%	The monitored object is an AS group.
mem_util	Memory Usage	Average memory usage of all instances in a monitored object	≥ 0%	The monitored object is an AS group.
				NOTE This metric is unavailable if the image has no VMTools installed.

Metric	Name	Description	Value Range	Remarks
network_inco ming_bytes_r ate_inband	Inband Incoming Rate	Average number of incoming bytes per second on all instances in a monitored object	≥ 0	The monitored object is an AS group.
network_outg oing_bytes_ra te_inband	Inband Outgoing Rate	Average number of outgoing bytes per second on all instances in a monitored object	≥ 0	The monitored object is an AS group.
instance_num	Number of Instances	Number of available instances in a monitored object	≥ 0	The monitored object is an AS group. Available ECSs are INSERVICE instances in an AS group.
disk_read_byt es_rate	Disks Read Rate	Number of bytes read from all instances in a monitored object per second	≥ 0	The monitored object is an AS group.
disk_write_by tes_rate	Disks Write Rate	Number of bytes written to all instances in a monitored object per second	≥ 0	The monitored object is an AS group.
disk_read_req uests_rate	Disk Read Requests	Number of read requests sent to all instances in a monitored object per second	≥ 0	The monitored object is an AS group.
disk_write_re quests_rate	Disks Write Requests	Number of write requests sent to all instances in a monitored object per second	≥ 0	The monitored object is an AS group.

◯ NOTE

For details about whether your OS supports the **Memory Usage**, **Inband Outgoing Rate**, and **Inband Incoming Rate** metrics, see *Elastic Cloud Server User Guide*.

Dimension

Key	Value
AutoScalingGroup	AS group ID

A.2 Error Codes

Description

This section provides the meanings of error codes returned by AS APIs.

Example of Returned Error Information

{"error":{"code":"AS.0001","message":"System error."}}

Error Code Description

If an error code starting with **APIGW** is returned after you call an API, rectify the fault by referring to the instructions provided in **API Gateway Error Codes**.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
500	AS.000 1	System error.	System error.	Try again later or contact technical support.
500	AS.004 9	Call IAM failed.	Failed to call the IAM API.	Try again later or contact technical support.
400	AS.000 2	Request body is null.	The message body is empty.	Enter a valid message body.
401	AS.000 5	The token of the header in the request is null.	The header in the request carries no or an empty token.	Enter a valid token.
401	AS.000 6	The token of the header in the request is incorrect.	The header in the request carries an incorrect, invalid, or expired token.	Enter a valid token.
404	AS.000 7	The requested resource [%s] could not be found.	The requested resources are not found.	Use the correct URL parameter.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.000 8	Incorrect ProjectID.	The project id value carried in the URL is different from that resolved from the token.	Check whether the parameter in the URL matches that in the token.
403	AS.001 1	You do not have the rights to perform the operation.	You do not have the rights to perform the operation.	Check whether your user roles include include te_admin, as_adm, and other required roles .
403	AS.001 2	The user role is suspended.	Your rights to perform the operation have been frozen.	Check whether your user roles include op_suspended , the frozen one.
403	AS.001 3	Your rights to perform the operation are disabled.	Your rights to perform the operation are disabled.	Check whether your user roles include op_restricted, the restricted one.
400	AS.002 2	Request body error	The request is invalid.	Check whether the request body is in standard JSON format or whether an unsupported parameter exists.
400	AS.002 6	Scaling action is not allowed in the cooling duration.	No scaling action is allowed in the cooldown period.	Try again later.
400	AS.003 1	Policy does not allow [%s] to be performed.	Fine-grained authentication failed because no authentication item is specified.	Add the required authorization item.
404	AS.003 3	The api version is illegal, only v1 and v2.	Invalid API ID.	Enter a correct API ID.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.003 4	Failed to execute the policy because the AS group is in active state.	Failed to trigger the AS policy because a scaling action in the AS group is in progress.	An AS policy can be automatically triggered only when there is no in-progress scaling action in the AS group. Try again later.
400	AS.100 1	The value of parameter Start number is invalid.	The start number value is invalid.	Enter a valid start number value.
400	AS.100 2	The value of parameter Limit is invalid.	The limit value is invalid.	Enter a valid limit value.
400	AS.100 3	The AS configuration ID is null.	The AS configuration ID is empty.	Add an AS configuration ID.
400	AS.100 4	The AS configuration does not exist.	The AS configuration does not exist.	Use a correct AS configuration ID.
400	AS.100 6	The AS configuration is in use.	The AS configuration is being used by an AS group and cannot be deleted.	Change this AS configuration for the AS group to another one and delete the AS configuration.
400	AS.100 7	The AS configuration name is null.	The AS configuration name is empty.	Add an AS configuration name.
400	AS.100 8	The AS configuration name is too long.	The AS configuration name is too long.	Use an AS configuration name of proper length.
400	AS.100 9	The AS group ID is null.	The AS group ID is not specified.	Add an AS group ID.
400	AS.101 1	The instance configuration information is null.	The instance_config field is not specified.	Enter a valid instance_config value.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.101 4	The image ID in the AS configuration is null.	The image ID is not specified.	Add an image ID.
400	AS.101 5	The image in the AS configuration does not exist.	The image in the AS configuration does not exist.	Use a correct image ID.
400	AS.101 6	The specification ID in the AS configuration cannot be null.	The flavor ID is not specified.	Add a flavor ID.
400	AS.101 7	The specification [%s] in the AS configuration does not exist.	The flavor of the AS configuration does not exist.	Use a correct flavor ID.
400	AS.101 8	The specification [%s] and image is not match.	The flavor and image do not match.	Check whether the flavor matches the image. If not, modify the configuration.
400	AS.101 9	The disk of this type is not applicable to the ECS.	The flavor and disk do not match.	Check whether the flavor matches the disk type. If not, change the resources.
400	AS.102 1	The image in the AS configuration is not activated.	The image in the AS configuration is not activated.	Use a correct image ID.
400	AS.102 2	The image in the AS configuration is not available.	The image in the AS configuration is unavailable.	Use a correct image ID.
400	AS.102 3	Invalid AS configuration name.	The AS configuration name is invalid.	Use a valid AS configuration name.
400	AS.102 4	The number of AS configurations exceeds the upper limit.	The number of AS configurations exceeds the upper limit.	Delete idle AS configurations or apply for a higher quota.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.102 5	The user login mode in the AS configuration is not unique.	The user login mode in the AS configuration is not unique.	Use account-and- password or key- pair login mode only.
400	AS.102 6	The user login mode in the AS configuration is empty.	The user login mode in the AS configuration is empty.	Use account-and- password or key- pair login mode only.
400	AS.102 7	The scaling config personality is invalid.	The user AS configuration is invalid.	Enter a valid personality value.
400	AS.102 8	The disk in the AS configuration is null.	The disk in the AS configuration is empty.	Enter a valid disk value.
400	AS.102 9	The number of system disks in the AS configuration is invalid.	The number of system disks in the AS configuration is invalid.	Ensure that there is only one system disk.
400	AS.103 0	The size of the system disk in the AS configuration is less than the specification required.	The size of the system disk in the AS configuration is smaller than the requirement.	Use a proper system disk size.
400	AS.103 1	The size of the disk in the AS configuration is not correct.	The size of the disk in the AS configuration is invalid.	Use a proper disk size.
400	AS.103 2	The ECS type [%s] in the AS configuration do not support 24 disks.	The number of disks in the AS configuration exceeds 24.	Ensure that the number of disks does not exceed the limit.
400	AS.103 3	Parameter volumeType in the AS configuration is invalid.	The volumeType of the disk in the AS configuration is invalid.	Use a valid volume_type value.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.103 4	Parameter diskType in the AS configuration is invalid.	The diskType in the AS configuration is invalid.	Use a valid disk_type value.
400	AS.103 5	Parameter adminPass in the AS configuration is invalid.	The password in the AS configuration fails to meet the complexity requirements.	Use passwords that meet complexity requirements.
400	AS.103 6	32-bit operating system (OS) does not support the specification [%s] with 4G memory.	The memory of 32-bit OS exceeds 4 GB.	Change the image or the policy.
400	AS.103 8	Batch deleting the AS configuration failed.	Deleting AS configurations in batches fails.	If this error code is returned, use parameter Message to obtain the configuration ID and the failure cause.
400	AS.103 9	The number of AS configurations is beyond the maximum limit.	The number of AS configurations to be deleted in batches exceeds the upper limit.	Delete a maximum of 50 AS configurations at a time.
400	AS.104 0	The list of AS config to be deleted is null.	The AS configuration list is empty.	Add the IDs of the AS configurations to be deleted in batches.
400	AS.104 1	The eip info of scaling config is null.	The eip field in the public_ip field is empty.	Ensure that the eip field is not empty when specifying the public_ip field.
400	AS.104 2	The bandwidth size of eip is invalid.	The bandwidth size is invalid.	Enter a valid bandwidth.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.104 3	The eip type of scaling config is invalid.	The EIP type is invalid.	Use a valid EIP type.
400	AS.104 4	The bandwidth charging mode of eip is invalid.	The bandwidth billing model of the AS configuration is invalid.	Use a valid bandwidth billing model.
400	AS.104 5	The bandwidth type of eip is invalid.	The bandwidth type is invalid.	Use a valid bandwidth.
400	AS.104 6	The bandwidth size of eip is null.	The bandwidth size is not specified.	Add the bandwidth value of the AS configuration.
400	AS.104 7	The bandwidth charging mode of eip is null.	The bandwidth billing model is not specified.	Specify a proper bandwidth billing model.
400	AS.104 8	The bandwidth id of eip is null.	The shared bandwidth ID of the AS configuration is not specified.	Add the shared bandwidth ID.
400	AS.104 9	Parameter userdata in the AS configuration is invalid.	Parameter userdata in the AS configuration is invalid.	Use a valid userdata.
400	AS.105 0	The user login mode in the AS configuration is illegal.	The user login mode in the AS configuration is invalid.	Use a valid login mode.
400	AS.105 2	Parameter metadata in the AS configuration is invalid.	The metadata in the AS configuration is invalid.	Use a valid metadata, whose maximum length is 512 bytes and the key value cannot contain spaces, \$, or periods(.).

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.105 3	The data image is not available.	The data image in the AS configuration is unavailable.	Use a valid data image.
400	AS.105 4	The size of the data disk in the AS configuration is less than the data image required.	The size of the data disk in the AS configuration is smaller than what the data image requires.	Use a proper data disk.
400	AS.105 5	The system disk is not support to data image.	A data disk image cannot be used to create a system disk.	Refer to the error code description.
400	AS.105 6	The data image in the AS configuration does not exist.	The data image in the AS configuration does not exist.	Use a valid data image ID.
400	AS.105 7	The DSS of the disk in the AS configuration is not available.	The selected DSS device is unavailable.	Use a correct DSS device.
400	AS.105 8	The type of dss in the AS configuration is incorrect.	The selected DSS device does not support the disk type.	Change the DSS device or disk type.
400	AS.105 9	The capacity of dss in the AS configuration is not enough.	The storage space on the selected DSS device is insufficient.	Change the DSS device.
400	AS.106 0	DSS and EVS are used together in the AS configuration.	You can use either DSS or EVS disks in an AS configuration.	Refer to the error code description.
400	AS.106 1	The DSS does not belong to the same AZ in the AS configuration.	The selected DSS devices must be in the same AZ.	Change DSS devices so that they are in the same AZ.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.106 2	The number of EVS disks with snapshot IDs in the AS configuration is different from that of EVS disks specified in the full-ECS image.	The number of disks with snapshot IDs in the AS configuration is different from that of EVS disks specified in the full-ECS image.	Refer to the error code description.
400	AS.106 3	The disk data backup in a full-ECS image cannot be used to restore the disk in DSS.	The disk data backup in a full-ECS image is used to restore the disk in DSS.	Refer to the error code description.
400	AS.106 4	The data disk you have selected will be restored using the disk data backup in the full-ECS image. Then, data mirroring will be unavailable.	Your selected data disk will recover from the disk backup in the full- ECS image, and data mirroring is unavailable now.	Refer to the error code description.
400	AS.106 5	ECS resources specified in the AS configuration belong to different AZs.	The VMs in the AS configuration do not belong to the same AZ.	Use ECS resources (specifications, images, disk) in the same AZ.
400	AS.106 6	The AS configuration contains EVS disks with invalid snapshot IDs.	The AS configuration contains EVS disks with invalid snapshot IDs.	Use a correct snapshot ID.
400	AS.106 7	The value of parameter Offset number is invalid.	Parameter offset is invalid.	Use a valid offset value.
400	AS.106 8	The server group in the AS configuration does not exist.	The ECS group in the AS configuration does not exist.	Use the ID of an existing ECS group.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.106 9	The maximum number of ECSs has been reached for the ECS group.	The maximum number of ECSs has been reached for the ECS group.	Change to another ECS group ID.
400	AS.107 0	The bandwidth id of eip does not exist.	The shared bandwidth of the AS configuration does not exist.	Use an existing shared bandwidth ID.
400	AS.107 1	Parameter tenancy in the AS configuration is invalid.	Parameter tenancy in the AS configuration is invalid.	Use a valid tenancy value.
400	AS.107 2	The server group ID is invalid.	The ECS group ID in the AS configuration is invalid.	Change to a correct ECS group ID.
400	AS.107 3	The dedicated host id does not exist.	DeH ID in the AS configuration does not exist.	Use the ID of an existing DeH.
400	AS.107 4	The value of parameter Marker is invalid.	Parameter marker is invalid.	Use a valid marker value.
400	AS.107 5	The image ID is invalid.	Image ID in the AS configuration is invalid.	Use a correct image ID.
400	AS.107 6	The bandwidth id of eip is invalid.	Shared bandwidth ID in the AS configuration is invalid.	Enter a correct shared bandwidth ID.
400	AS.107 7	No available dedicated host resource.	No DeH available.	Create a DeH or restore an existing DeH.
400	AS.107 8	The dedicated host has insufficient available capacity for [%s].	The selected DeH does not have sufficient capacity.	Allocate a DeH or use another DeH.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.107 9	No dedicated host resources supporting this type [%s] of ECS.	No DeH that supports this type of ECSs is available.	Change the type of ECSs in the AS configuration.
400	AS.108 0	No dedicated host resources supporting the AZ [%s] you selected.	No DeH is available in the AZ.	Change the AZ of the AS group or create a DeH in the AZ.
400	AS.108 1	This specification [%s] does not support IPv6.	The AS configuration does not support IPv6 addresses.	Change the AS configuration.
400	AS.108 2	Bandwidth type is not shared.	The bandwidth is not shared.	Use a shared bandwidth.
400	AS.108 3	Instance marketing type is illegal.	The billing model in the AS configuration is invalid.	Use a valid market_type value.
400	AS.108 4	Failed to query the price of specification [%s] from CBC.	Failed to query the spot pricing or payper-use flavor price.	Change the flavor in the AS configuration or contact technical support.
400	AS.108 5	Invalid multi flavor priority policy.	The priority policy used in multiflavor AS configuration is invalid.	Use a valid multi_flavor_priori ty_policy value.
400	AS.108 6	AS configuration is not available for AS group	The AS configuration is unavailable.	Replace the AS configuration in the AS group.
400	AS.108 7	The number of flavors in the AS config exceeds the upper limit.	The number of flavors in the AS configuration reaches the upper limit.	Ensure that the number of flavors in the AS configuration does not exceed the upper limit.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.108 8	The image in the AS configuration you selected is unavailable for the AZ [%s] in AS group.	The image in the AS configuration is not available in the AZ of the AS group.	Change another AS configuration or AZ for the AS group.
400	AS.109 0	Flavor {0} in the AS configuration is incompatible with the image architecture.	The selected flavor is incompatible with the image architecture.	Ensure that the selected flavor is compatible with the image architecture.
400	AS.109 7	Parameter iops in the AS configuration is invalid	Parameter iops in the AS configuration is invalid.	Specify a valid iops .
400	AS.109 8	Parameter throughput in the AS configuration is invalid	Parameter throughput in the AS configuration is invalid.	Specify a valid throughput.
400	AS.109 9	Can not create AS configuration with exist instance that volume_type is GPSSD2,ESSD2	When you use an existing ECS to create an AS configuration, the disk type cannot be GPSSD2 or ESSD2.	Choose another ECS that use supported types of disks.
400	AS.200 2	The name of the AS group is null.	The AS group name is empty.	Add an AS group name.
400	AS.200 3	The AS group name is too long.	The AS group name is too long.	Use an AS group name of proper length.
400	AS.200 4	Invalid min or max number of instances in the AS group.	The maximum or minimum number of instances is invalid.	Enter correct maximum/ minimum number of instances for the AS group.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.200 5	The expected number cannot be less than the minimum number of instances or greater than the maximum number of instances.	The expected number of instances in the AS group is invalid.	Enter a valid number of expected instances for the AS group.
400	AS.200 6	Invalid cooldown period of the AS group.	The cooldown period in the AS group is invalid.	Enter a valid cooldown period for the AS group.
400	AS.200 7	The AS group does not exist.	The AS group does not exist.	Use a correct AS group ID.
400	AS.200 8	Invalid execution action of the AS group.	The scaling action of the AS group is invalid.	Use a correct scaling action for the AS group.
400	AS.200 9	The AS group ID is null.	The AS group ID is not specified.	Add an AS group ID.
400	AS.201 0	The expected number of instances in the AS group cannot be smaller than the number of instances for which instance protection has been configured.	The expected number of instances in the AS group cannot be smaller than the number of instances for which instance protection has been configured.	Ensure that the number of expected instances is no less than the protected instances, or change the expected number of instances after canceling instance protection.
400	AS.201 1	Invalid AZ in AS group.	The AZ in the AS group is invalid.	Use a valid value.
400	AS.201 2	The VPC of the AS group does not exist.	The VPC of the AS group does not exist.	Use a valid value.
400	AS.201 3	Parameter networks in the AS group is invalid.	Parameter networks in the AS group is invalid.	Use a valid value.
400	AS.201 4	The security group of the AS group does not exist.	The security group of the AS group does not exist.	Use a valid value.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.201 5	Parameter listenerId in the AS group is invalid.	The load balancer listener of the AS group is invalid.	Use a valid value.
400	AS.201 6	The listener of the AS group does not belong to the vpc.	The VPC to which the ELB listener in the AS group belongs is different from the VPC in the AS group.	Change the VPC ID or ELB listener ID.
400	AS.201 7	The ID of the VPC in the AS group is null.	The VPC ID in the AS group is not specified.	Add a VPC ID.
400	AS.201 8	No AS configuration is in the AS group.	No AS is configured in the AS group.	Enable the AS group after adding an AS configuration to the AS group.
400	AS.201 9	The value of the parameter that specifies whether to forcibly delete an AS group is invalid.	The value of the parameter that specifies whether to forcibly delete an AS group is invalid.	Use a valid value.
400	AS.202 0	The scaling group status is illegal.	The AS group status is invalid.	You are not allowed to perform the operation when the AS group is in the current status.
400	AS.202 1	The current number of instances in the AS group is not 0.	Deleting the AS group fails because there are instances in it.	Before deleting the AS group, deleting its instances.
400	AS.202 2	The AS group name contains invalid characters.	The AS group name contains invalid characters.	Use a correct AS group name.
400	AS.202 3	The number of AS groups exceeds the upper limit.	The number of AS groups exceeds the upper limit.	Delete idle AS groups or apply for a higher quota.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.202 4	The number of subnets in the AS group exceeds the upper limit.	The number of subnets in the AS group exceeds the upper limit.	Ensure that the number of subnets does not exceed the upper limit.
400	AS.202 5	The number of security groups in the AS group exceeds the upper limit.	The number of security groups in the AS group exceeds the upper limit.	Ensure that the number of security groups does not exceed the upper limit.
400	AS.202 6	The type of listeners in the AS group is not unique.	There are ELB listeners of different types in the AS group.	lb_listener_id is alternative to lbaas_listeners.
400	AS.202 7	The subnet of the AS group does not belong to the vpc.	The VPC to which some subnets in the AS group belong is different with the VPC in the AS group.	Change the VPC ID or subnet.
400	AS.202 8	The modified expected number of instances is the same as the original number.	The new expected number of instances is the same as the original number.	Refer to the error code description.
400	AS.202 9	Invalid health check method of the AS group.	The health check method for instances in the AS group is incorrect.	Use a valid health_periodic_au dit_method value.
400	AS.203 0	You are not allowed to modify the AZ, subnet, and security information when the number of instances in the AS group is not 0, the AS group is scaling, or the AS group is in Inservice status.	You are not allowed to modify the AZ, subnet, or security group information when there are instances in the AS group, the AS group is scaling, or the AS group is in Inservice state.	Check the number of instances in the AS group and the status of the AS group, or try again later.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.203 1	Invalid health check period of the AS group.	The health check period of the AS group is invalid.	Use a valid health_periodic_au dit_time value.
400	AS.203 2	Invalid instance removal policy.	The instance removal policy for the AS group is invalid.	Use a valid instance_terminat e_policy value.
400	AS.203 3	You are not allowed to perform the operation when the AS group is in current [%s] status.	You are not allowed to perform the operation when the AS group is in the current status.	Refer to the error code description.
400	AS.203 4	Invalid notification method of the AS group.	The notification method for the AS group is invalid.	Use a valid notification method.
400	AS.203 5	The number of instances manually added to the AS group exceeds the maximum number of the instances required in the AS group.	The number of ECSs in the AS group is greater than the upper limit because some ECSs are manually added.	Add a proper number of ECSs or increase the maximum number of instances in the AS group.
400	AS.203 6	The number of instances manually deleted is less than the minimum number of the instances required in the AS group.	The number of ECSs in the AS group is smaller than the lower limit because some ECSs are manually deleted.	Delete a proper number of ECSs or decrease the minimum number of instances in the AS group.
400	AS.203 7	The number of listeners in the AS group exceeds the upper limit.	The number of ELB listeners in the AS group reaches the upper limit.	Select a proper number of load balancer listeners.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.203 8	The type [%s] of ECS in the AZ you selected has been sold out.	The ECSs of this type have been sold out in the AZ specified for this AS group.	Refer to the error code description. Change the AZ of the AS group or change the AS configuration for the AS group.
400	AS.203 9	Parameter protocolPort of the AS group is invalid.	Parameter protocolPort of the AS group is invalid.	Use a valid protocolPort.
400	AS.204 0	Parameter weight of the AS group is invalid.	Parameter weight of the AS group is invalid.	Use a valid weight .
400	AS.204 2	Parameter pool of lbaas in the AS group is invalid.	The load balancer pool in the AS group is invalid.	Use a valid pool .
400	AS.204 3	There is not avalid volume in the AZ [%s] you selected.	Storage resources of this type are sold out or do not exist in the AZ specified for this AS group.	Refer to the error code description. Change the AZ of the AS group or change the AS configuration for the AS group.
400	AS.204 4	The AZ in the AS group is not available.	The AZ in the AS group is invalid.	Refer to the error code description. Change the AZ of the AS group.
400	AS.204 5	The min or max number of instances in the AS group exceeds the upper limit.	The minimum or maximum number of instances in the AS group exceeds the limit.	Enter proper maximum and minimum numbers of instances for the AS group.
400	AS.204 6	Invalid health check grace period of the AS group.	The grace period for the instance health check is invalid.	Use a valid health_periodic_au dit_grace_period value.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.204 7	The AS group is in active status.	Failed to modify load balancer parameters because a scaling action is ongoing.	Wait until the scaling action is complete and modify the load balancer parameters again.
400	AS.204 8	This subnet does not support IPv6.	The subnet does not support IPv6 addresses.	Change to a subnet that supports IPv6 or disable IPv6.
400	AS.204 9	The AZ in the AS group does not support IPv6.	The AZ does not support IPv6 addresses.	Change to an AZ that supports IPv6 or disable IPv6.
400	AS.205 0	IPv6 shared bandwidth can be used only after IPv6 is enabled.	IPv6 shared bandwidth can be used only after IPv6 is enabled.	Enable IPv6 and then use the IPv6 bandwidth.
400	AS.205 1	The expected number cannot be less than the number of instances moved into the standby state.	The number of expected instances cannot be less than that of standby instances.	Ensure that the number of expected instances is not less than that of standby instances (including instances that are entering the standby mode and those that are already in standby mode).
400	AS.205 2	The expected number cannot be less than the sum of the number of standby instances and protected instances.	The number of expected instances cannot be less than the total of standby and protected instances.	Ensure that the number of expected instances is not less than the total of standby (including instances that are entering the standby mode and those that are already in standby mode) and protected instances.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.205 3	Invalid multi az priority policy.	The priority policy used for multiple AZs in the AS group is invalid.	Change the priority policy used for multiple AZs in the AS group.
400	AS.205 4	The AS group is in active status.	Failed to change the AZ because a scaling action is ongoing.	Wait until the scaling action is complete and change the AZ again.
400	AS.300 2	Invalid AS policy type.	The AS policy type is invalid.	Use a valid scaling_policy_typ e value.
400	AS.300 3	The information about the AS policy is null.	When the AS policy is scheduled or periodic, parameter scheduled_policy is empty.	Use a valid scheduled_policy value.
400	AS.300 4	Invalid recurrence type in the AS policy.	The period type is incorrect.	Use a valid recurrence_type value.
400	AS.300 5	The end time of the scaling action triggered periodically is empty.	The end time is not specified for a periodic AS policy.	Enter a valid end_time value.
400	AS.300 6	The format of the end time for the scaling action triggered periodically is incorrect.	The format of the end time for the periodically triggered scaling action is incorrect.	Use a correct format for the end time.
400	AS.300 7	The end time of the scaling action triggered periodically must be later than the current time.	The end time of the scaling action triggered periodically must be later than the current time.	Ensure that the end time is later than the current time.
400	AS.300 8	Parameter lanchTime in the AS policy is null.	The triggering time is not specified.	Enter a valid launch_time value.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.300 9	The format of parameter lanchTime is incorrect.	The triggering time format is incorrect.	Use a correct triggering time format.
400	AS.301 0	The triggering time of the scheduled policy must be later than the current time.	The triggering time of the scaling action triggered at a scheduled time must be later than the current time.	Ensure that the triggering time of the scheduled policy is later than the current time.
400	AS.301 1	The AS policy type is null.	The AS policy type is not specified.	Enter a valid scaling_policy_typ e value.
400	AS.301 2	Invalid cooldown period in the AS policy.	The cooldown period in the AS policy is invalid.	Enter a valid cool_down_time value.
400	AS.301 3	The AS policy name is null.	The AS policy name is not specified.	Enter a valid scaling_policy_na me value.
400	AS.301 4	The length of the AS policy name is invalid.	The length of the AS policy name is invalid.	Enter a valid scaling_policy_na me value.
400	AS.301 5	The action in the AS policy is null.	The execution action in the AS policy is not specified.	Enter a valid scaling_policy_acti on value.
400	AS.301 6	The operation to perform the action in the AS policy is null.	The operation to perform the execution action in the AS policy is not specified.	Enter a valid operation value.
400	AS.301 7	The operation to perform the action in the AS policy action is invalid.	The operation to perform the action in the AS policy is invalid.	Enter a valid operation value.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.301 8	The number of instances which action in the AS policy operates on is invalid.	The number of instances to which the AS policy applies is invalid.	Enter a valid instance_number value.
400	AS.301 9	The AS group ID in the AS policy cannot be null.	The AS group ID in the AS policy is not specified.	Add an AS group ID.
400	AS.302 0	The AS policy does not exist.	The AS policy does not exist.	Use a correct AS policy ID.
400	AS.302 1	The AS policy ID cannot be null.	The AS policy ID is not specified.	Add an AS policy ID.
400	AS.302 2	The action of the AS policy request body is invalid.	The action of the AS policy request body is invalid.	Use a valid action value.
400	AS.302 3	The period type of the AS policy is null.	The period type of the AS policy is empty.	Use a valid recurrence_type value.
400	AS.302 4	The value of the period type of the AS policy is null.	The value of the periodically triggered tasks of the AS policy is empty.	Add a valid recurrence_value value.
400	AS.302 5	The value of period type of the AS policy is invalid.	The period type of the AS policy is invalid.	Use a valid recurrence_type value.
400	AS.302 6	The alarm ID in the AS policy is null.	The alarm ID in the AS policy is empty.	Add an alarm ID.
400	AS.302 7	The AS policy must be in the inservice status when the AS policy is performed.	The AS group must be in service when the AS policy is performed.	Enable the AS group and try again.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.302 8	The format of the start time for the scaling action triggered periodically is incorrect.	The format of the start time for the periodically triggered scaling action is incorrect.	Use a correct format for the start time.
400	AS.302 9	The start time of the scaling action triggered periodically must be earlier than the end time.	The start time of the periodically triggered scaling action must be earlier than the end time.	Ensure that the start time of the periodic policy is earlier than the end time.
400	AS.303 0	The alarm in the AS policy does not exist.	The alarm rule in the AS policy does not exist.	Modify the alarm rule used by the AS policy.
400	AS.303 1	Invalid AS policy name.	The AS policy name is invalid.	Enter a valid scaling_policy_na me value.
400	AS.303 2	The number of AS policies exceeds the upper limit.	The number of AS policies exceeds the upper limit.	Delete idle AS policies or apply for a higher quota.
400	AS.303 3	The triggering time of the periodic policy is not included in the effective time of the policy.	The triggering time of the periodic policy falls outside the effective time range of the policy.	Ensure that the triggering time of the periodic policy is within the range from the start time to the end time.
400	AS.303 4	The alarm ID in the AS policy is being used by another AS group.	The alarm ID in the AS policy is being used by another AS group.	Refer to the error code description. An alarm ID can be used only by the AS policy in one AS group at a time.
400	AS.303 5	The percentage of instances which action in the AS policy operates on is invalid.	The percentage of instances to which the AS policy applies is invalid.	Use a valid instance_percenta ge value.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.303 6	The action in the AS policy operates is not unique.	The action in the AS policy operates is not unique.	Select one from instance_percenta ge or instance_number.
400	AS.303 7	The scaling resource type in the AS policy is invalid.	The resource type in the AS policy is invalid.	Use a valid scaling_resource_t ype value.
400	AS.303 8	The AS policy is in executing status.	The AS policy is being executed and cannot be executed again.	Try again later.
400	AS.304 0	The adjustment by policy reached the limit	The number of modifications to scaling resources in the AS policy has reached the upper limit.	Refer to the error code description.
400	AS.304 1	The scaling resource ID in the AS policy is null.	The scaling resource ID in the AS policy is not specified.	Enter a valid AS resource ID in the AS policy.
400	AS.304 2	The scaling resource in the AS policy does not exist.	The scaling resource in the AS policy does not exist.	Enter a valid AS resource ID in the AS policy.
400	AS.304 3	The limit which action in the AS policy operates on is invalid.	The value of parameter limits in the AS policy is invalid.	Use a valid limits value in the AS policy.
400	AS.304 4	Parameter limits in the AS policy is invalid.	Bandwidth billed in yearly/monthly mode cannot be dynamically changed.	Select a valid bandwidth.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.304 5	Failed to delete policies in a batch.	Failed to delete policies in batches.	If this error code is returned, use parameter Message to obtain the policy ID and the failure cause.
400	AS.304 6	Failed to resume policies in a batch.	Failed to enable policies in batches.	If this error code is returned, use parameter Message to obtain the policy ID and the failure cause.
400	AS.304 7	Failed to pause policies in a batch.	Failed to disable policies in batches.	If this error code is returned, use parameter Message to obtain the policy ID and the failure cause.
400	AS.304 8	The value of the parameter that specifies whether to forcibly delete the policy is invalid.	The value of the parameter that specifies whether to forcibly delete the policy is invalid.	Use a valid force_delete value.
400	AS.304 9	The list of AS policies to be batched is empty.	The list of AS policies on which a batch operation is to be performed is empty.	Add the IDs of the AS policies to be operated in batches.
400	AS.305 0	The alarm ID in the AS policy is illegal.	The format of the alarm ID in the AS policy is incorrect.	Use an alarm ID in correct format.
400	AS.305 4	The scaling resource type in the AS policy is null.	The scaling resource type in the AS policy cannot be left blank.	Use a valid scaling_resource_t ype value.
400	AS.305 5	The scaling resource ID in the AS policy is format wrong.	The scaling resource ID in the scaling policy is invalid.	Enter a valid AS resource ID in the AS policy.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.305 6	The value of the parameter that specifies whether to delete the alarm in the AS policy is invalid.	The value of the alarm rule used for deleting the scaling policy is invalid.	Use a valid delete_alarm value.
400	AS.305 7	The value of parameter sort_by in the request is invalid.	The sort_by value in the request is invalid.	Use a valid sort_by value.
400	AS.305 8	The value of parameter order in the request is invalid.	The order value in the request is invalid.	Use a valid order value.
400	AS.400 0	The value of parameter start_number in the request for the instance is invalid.	The start_number value in the instance request is invalid.	Use a valid start_number value.
400	AS.400 1	The value of parameter limit in the request for the instance is invalid.	The limit value in the instance request is invalid.	Use a valid limit value.
400	AS.400 3	The value of parameter life_cycle_state in the instance request is invalid.	The life_cycle_state value in the instance request is invalid.	Use a valid life_cycle_state value.
400	AS.400 4	The value of parameter health_status in the request for the instance is invalid.	The health_status value in the instance request is invalid.	Use a valid health_status value.
400	AS.400 5	Parameter scaling_group_id in the request for the instance does not exist.	The scaling_group_id in the instance request does not exist.	Use a correct scaling_group_id.
400	AS.400 6	The instance does not exist.	The instance does not exist.	Use a correct instance ID.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.400 7	The value of the parameter that specifies whether to delete the instance is invalid.	The value of the parameter that specifies whether to delete the instance is invalid.	Use a valid value.
400	AS.400 8	The start time format of the log about the expected number of the instances is incorrect.	The start time format of the log about the expected number of the instances is incorrect.	Use a correct format.
400	AS.400 9	The end time format of the log about expected number of the instances is incorrect.	The end time format of the log about expected number of the instances is incorrect.	Use a correct format.
400	AS.401 0	Parameter start_number in the request for the log about the expected number of instances is invalid.	The start_number in the request for the log about the expected number of instances is invalid.	Use a valid start_number value.
400	AS.401 1	The value of parameter limit in the request for the log about the expected number of instances is invalid.	The value of limit in the request for the log about the expected number of instances is invalid.	Use a valid limit value.
400	AS.401 2	The value of parameter logId in the request for the log about the expected number of instances is invalid.	The logId in the request for the log about the expected number of instances is invalid.	Use a valid logid value.
400	AS.401 3	The list of instances to be deleted is null.	The list of instances to be deleted is empty.	Add instances to be deleted.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.401 4	The instances do not belong to the same AS group.	The instances do not belong to the same AS group.	Select instances in the same AS group.
400	AS.401 5	The instance is not in the inservice status.	The instance is not in inservice state.	Select an inservice instance.
400	AS.401 6	Failed to delete the instance because the instance is charged by month or year.	The instance cannot be deleted because it is charged by month or year.	Refer to the error code description.
400	AS.401 7	The requested instance is null.	The requested instance is empty.	Enter a valid instance.
400	AS.401 8	The action of the body in the request to operate the instance is invalid.	The value of the request body action of the batch instance operation is invalid.	Use a valid value.
400	AS.401 9	The list of instances to be added to the AS group is empty.	The list of instances to be added to the AS group is empty.	Enter a valid instance.
400	AS.402 0	The AZ to which the instance belongs is not within the AZ in the AS group.	The AZ to which the instance belongs is different from the AZ to which the AS group belongs.	Select a proper instance for the AZ.
400	AS.402 1	The VPC to which the instance belongs is different from the VPC in the AS group.	The VPC to which the instance belongs is different from the VPC in the AS group.	Select a proper instance for the VPC.
400	AS.402 2	The number of instances added to the AS group exceeds the upper limit.	The number of instances added to the AS group exceeds the upper limit.	Add a proper number of instances.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.402 3	The added instance has already existed.	The added instance already exists.	Select another valid instance.
400	AS.402 4	The instance is not in the active status.	The added instance is not in the active state.	Select an active instance.
400	AS.402 5	The value of the parameter that specifies whether to append new instance(s) is invalid.	Invalid value for determining whether to add new ECSs when ECSs enter the standby mode.	Use a valid value.
400	AS.402 6	The number of instances deleted exceeds the upper limit.	The number of instances deleted exceeds the upper limit.	Delete a proper number of instances.
400	AS.402 7	The added instance has already existed in other AS group.	The instance has already been added to another AS group.	Select another valid instance.
400	AS.402 8	The AS instance ID cannot be null.	The instance ID cannot be left blank.	Use a correct instance ID.
400	AS.402 9	Failed to add instances in a batch.	Failed to batch add instances.	If this error code is returned, use parameter Message to obtain the instance ID and the failure cause.
400	AS.403 0	Failed to delete instances in a batch.	Failed to delete instances in batches.	If this error code is returned, use parameter Message to obtain the instance ID and the failure cause.
400	AS.403 2	The list of instances is null.	The list of instances is empty.	Refer to the error code description.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.403 3	Failed to set instance protection in a batch.	Failed to set instance protection in a batch.	If this error code is returned, use parameter Message to obtain the instance ID and the failure cause.
400	AS.403 6	Failed to set instance enter standby in a batch.	Failed to set instances to standby mode.	If this error code is returned, use parameter Message to obtain the instance ID and the failure cause.
400	AS.403 7	Failed to set instance exit standby in a batch.	Failed to cancel standby mode for instances.	If this error code is returned, use parameter Message to obtain the IDs of the instances and the failure cause.
400	AS.403 8	The instance is not in the standby status.	The instance is not in standby mode.	Select a standby instance.
400	AS.403 9	After adding new instances equal to the number of standby instances, the expected number cannot be larger than the max instance number of group.	The number of expected instances cannot be greater than the maximum number of instances after the instances with the same number of standby instances are added to the AS group.	Change the maximum number of instances.
400	AS.404 3	The number of instances exceeds the upper limit.	The number of instances for batch operations exceeds the upper limit.	Ensure that the number of instances for batch operations is no more than 10 at a time.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.700 3	called interface of VPC service failed	Failed to call APIs of the VPC service.	Try again later or contact technical support.
400	AS.701 1	This DeC does not support ECSs of this type [%s].	This DeC does not support ECSs of this type.	Use other types of ECS specifications.
400	AS.701 2	The ELB listener is unavailable.	The ELB listener does not exist.	Modify the ELB listener information.
400	AS.701 6	This DeC does not support the AZ [%s] you selected.	This DeC does not support this AZ.	Modify the AZ information.
400	AS.701 9	The number of private IP addresses in the subnet is insufficient.	Private IP addresses in the subnet are insufficient.	Modify the subnet information and enable the AS group.
400	AS.702 2	The key pair does not exist.	The SSH key of the AS configuration does not exist.	Replace the AS configuration in the AS group.
400	AS.702 5	The topic urn is not valid.	The notification subject is invalid.	Use a valid notification subject.
400	AS.702 6	The topic scene is not valid.	The notification scene is invalid.	Use a valid notification scene.
400	AS.702 7	The topic of notification is null.	The notification subject is empty.	Add a notification subject.
400	AS.702 8	The number of topics in the AS group exceeds the upper limit.	The number of notifications in the AS group exceeds the upper limit.	Add a maximum of five notifications.
400	AS.702 9	The topic of notification is duplicate.	The notification subject is duplicate.	Use a correct notification subject.
400	AS.703 0	Invalid lifecycle hook default timeout.	The lifecycle hook timeout duration is invalid.	Use a valid value.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.703 1	Invalid lifecycle hook name.	The lifecycle hook name is invalid.	Use a valid value.
400	AS.703 2	The name of the lifecycle hook is empty.	The lifecycle hook name is empty.	Add a lifecycle hook name.
400	AS.703 3	Invalid lifecycle hook type.	The lifecycle hook type is invalid.	Use a valid value.
400	AS.703 4	Invalid lifecycle hook callback action result.	The default callback action of the lifecycle hook is invalid.	Use a valid value.
400	AS.703 5	The metadata of the lifecycle hook is too long.	The length of lifecycle hook metadata exceeds the maximum allowed.	Use a valid value.
400	AS.703 6	The lifecycle hook is null.	The lifecycle hook is empty.	Use a valid value.
400	AS.703 7	The type of the lifecycle hook is empty.	The lifecycle hook type is empty.	Use a valid value.
400	AS.703 8	The number of hooks in the AS group exceeds the upper limit.	The number of lifecycle hooks exceeds the upper limit.	Add a maximum of five lifecycle hooks.
400	AS.703 9	The lifecycle hook callback action result is empty.	The lifecycle hook callback action is empty.	Use a valid value.
400	AS.704 0	The lifecycle hook callback object is empty.	The lifecycle hook callback object is empty.	Use a valid value.
400	AS.704 1	The lifecycle hook callback object is empty.	The lifecycle hook name already exists.	Use a valid value.
400	AS.704 2	The lifecycle hook callback object does not exist.	The lifecycle hook callback object does not exist.	Use a valid value.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.704 3	The lifecycle hook topic urn does not exist.	The notification subject configured for your lifecycle hook does not exist.	Use a valid value. Check the notification subject configured for your lifecycle hook.
400	AS.704 4	The tag of this resource is null	The tag of this resource is empty.	Use a valid value.
400	AS.704 5	The number of tags exceeded.	The maximum number of tags has been reached.	Add a maximum of 10 tags.
400	AS.704 6	The tags in the resource is invalid.	The tag is invalid.	Use a valid tag.
400	AS.704 7	The value of tag in the resource is too long.	The tag value is too long.	Use a valid value.
400	AS.704 8	The resource type in this operation with tag is invalid.	The resource type in this operation with tag is invalid.	Use a valid value.
400	AS.704 9	The action in this operation with tag is invalid.	The action in this operation with tag is invalid.	Use a valid value.
400	AS.705 0	The key of tag cannot be duplicate.	The key of tag is duplicate.	Use a valid value.
400	AS.705 1	The backend ECS group in the AS group does not exist.	The backend ECS group in the AS group does not exist.	Use a valid value. Change the pool of ELB.
400	AS.705 2	The matches in the resource is invalid.	The matches value is invalid.	Use a valid matches value.
400	AS.705 4	The value of tag cannot be duplicate.	A key in the tag has duplicate values.	Check and change the duplicate values in the tag.
400	AS.705 5	The metadata of the lifecycle hook has special character.	The lifecycle hook metadata contains invalid characters.	Use a valid value.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.705 9	The enterprise project does not exist.	The selected enterprise project does not exist.	Use an existing enterprise project.
400	AS.706 0	The enterprise project is unavailable.	The enterprise project is unavailable.	Use an available enterprise project.
400	AS.706 1	The value of scaling tag is null.	The value of the tag is empty.	Use a valid value.
400	AS.706 2	The key of scaling tag is null.	The key of the tag is empty.	Use a valid value.
400	AS.706 3	The key of scaling tag is too long.	The tag key is too long.	Use a valid value.
400	AS.706 5	The value of parameter enterprise_project_id in the request is invalid.	The request parameter enterprise_project _id is invalid.	Use a valid enterprise_project _id.
400	AS.711 1	Insufficient instance quota.	Insufficient ECS quota.	Release idle ECSs or increase the ECS quota.
400	AS.711 2	Insufficient volume quota.	Insufficient EVS disk quota.	Release idle ECSs or increase the EVS disk quota.
400	AS.711 3	Insufficient elastic ip quota.	Insufficient EIP quota.	Release idle EIPs or increase the EIP quota.
400	AS.711 4	Insufficient ram quota.	Insufficient ECS memory quota.	Release idle ECSs or increase the ECS memory quota.
400	AS.711 5	Insufficient cpu quota.	Insufficient ECS vCPU quota.	Release idle ECSs or increase the ECS vCPU quota.
400	AS.711 8	The maximum number of EIPs bounded to this shared bandwidth has been reached.	The maximum number of EIPs that can be bound to the shared bandwidth has been reached.	Change the shared bandwidth.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.800 4	User resources are frozen.	User resources are frozen and cannot be operated.	Recharge your account, after which the system will automatically unfreeze your resources.
400	AS.900 1	The format of the start time of the scaling activity log is incorrect.	The format of the start time of the scaling log is incorrect.	Use a valid value.
400	AS.900 2	The format of the end time for the scaling action log is incorrect.	The format of the end time for the scaling log is incorrect.	Use a valid value.
400	AS.900 3	The value of parameter start_number in the request for the scaling activity log is invalid.	The start_number in the request for the scaling log is invalid.	Use a valid value.
400	AS.900 4	The value of parameter limit in the request for the scaling activity log is invalid.	The limit in the request for the scaling log is invalid.	Use a valid value.
400	AS.900 5	The value of parameter log_id in the request for the scaling log is invalid.	The logId in the request for the scaling log is invalid.	Use a valid value.
400	AS.900 7	The format of the execute time in the request is incorrect.	The time format of the AS policy execution log is incorrect.	Use a valid value.
400	AS.900 8	The value of parameter start_number in the request is invalid.	Parameter start_number in the AS policy execution log is invalid.	Use a valid value.

HTT P Stat us Cod e	Error Code	Error Message	Description	Solution
400	AS.900 9	The value of parameter limit in the request is invalid.	Parameter limit in the AS policy execution log is invalid.	Use a valid value.
400	AS.901 0	The value of parameter log_id in the request is invalid.	Parameter logid in the AS policy execution log is invalid.	Use a valid value.
400	AS.901 1	The value of parameter scaling_resource_id in the request is invalid.	The resource ID in the AS policy execution log is invalid.	Use a valid value.
400	AS.901 2	The value of parameter type in the request for the scaling activity log is invalid.	The type in the request for the scaling action log is invalid.	Use a valid type value.
400	AS.901 3	The value of parameter status in the request for the scaling activity log is invalid.	The status in the request for the scaling action log is invalid.	Use a valid value.

B Change History

Released On	Description
2023-11-08	This issue is the twentieth official release, which incorporates the following change:
	 Added the protocol_version parameter to Creating an AS Group, Querying AS Groups, Querying an AS Group, and Modifying an AS Group.
2023-10-16	This issue is the nineteenth official release, which incorporates the following change:
	Added parameter source_scaling_configuration_id to Creating an AS Configuration.
2023-09-08	This issue is the eighteenth official release, which incorporates the following change:
	Added sections Creating a Planned Task, Querying Planned Tasks, Updating a Planned Task, and Deleting a Planned Task.
2020-07-30	This issue is the seventeenth official release, which incorporates the following changes:
	Added Application Examples.
2019-09-30	This issue is the fourteenth official release, which incorporates the following changes:
	 Added the delete_volume parameter to Creating an AS Group, Querying AS Groups, Querying an AS Group, and Modifying an AS Group.
	Added error code AS.1090 to Error Codes.

Released On	Description
2019-05-31	 This issue is the fifteenth official release, which incorporates the following changes: Modified the available_zones description in Modifying an AS Group because adding, changing, and deleting the AZ without disabling the AS group is supported. Added error code AS.2054 to Error Codes. Optimized the document structure. Added API Calling, Endpoints, Constraints, and Concepts.
2019-04-30	 This issue is the fourteenth official release, which incorporates the following changes: Added the log_id and status fields to Querying Scaling Action Logs (V2). Added error codes AS.9012 and AS.9013 to Error Codes. Added Querying Tags, Querying Tags of a Resource, Creating or Deleting a Tag, and Querying Resources by Tag because tag management is supported.
2019-03-31	 This issue is the thirteenth official release, which incorporates the following changes: Added parameter market_type to Creating an AS Configuration. Added parameters multi_flavor_priority_policy, multi_az_priority_policy, instance_config, delete_alarm, and alarm_id. Added error codes AS.1085, AS.1086, AS.1087, AS.1088, AS.2053, AS.7016, AS.1083, AS.1084, and AS.3056 to Error Codes. Modified error codes AS.1017, AS.1018, AS.1032, AS.1036, AS.1078, AS.1080, AS.1081, AS.1084, AS.2038, AS.2043, and AS.7011 in Error Codes.
2019-01-31	 This issue is the twelfth official release, which incorporates the following changes: Added parameter instance_append and parameters related to the instance standby mode to Batch Managing Instances. Added parameter instance_standby_list and parameters related to the instance standby mode to Querying Scaling Action Logs (V2). Added error codes AS.2051, AS.2052, AS.4036, AS.4037, AS.4038, and AS.4039 to Error Codes.

Released On	Description
2018-12-30	This issue is the eleventh official release, which incorporates the following changes:
	 Added parameters tenancy and dedicated_host_id to the instance_config field in Creating an AS Configuration.
	 Added error codes AS.1071, AS.1073, AS.1077, AS.1078, AS.1079, AS.1081, AS.2048, AS.2049, AS.2050, AS.1080, and AS.1082 to Error Codes.
	Modified error codes AS.1068, AS.1075, and AS.1076 in Error Codes.
2018-11-30	This issue is the tenth official release, which incorporates the following changes:
	 Added parameter protect_from_scaling_down to Querying Instances in an AS Group.
	Added Querying Scaling Action Logs (V2).
	Added error code AS.2047 to Error Codes.
	 Modified error codes AS.2015, AS.2035, and AS.2042 in Error Codes.
2018-09-30	This issue is the ninth official release, which incorporates the following changes:
	 Added parameter id to the bandwidth field and optimized descriptions of other parameters to Creating an AS Configuration and Querying AS configurations.
	 Added error codes AS.1033, AS.1046, AS.1047, AS.1048, AS.1068, AS.1069, AS.1070, AS.1071, AS.1072, AS.1074, AS.1075, AS.1076, AS.7118, AS.3055, and AS.8004 to Error Codes.
	 Added parameter server_group_id to Creating an AS Configuration.
	Added Querying AS Policies (V2).
	Added API Version Query.
	Adjusted the outline of the document.
2018-08-30	This issue is the eighth official release, which incorporates the following changes:
	Changed the default cooldown period to 300s.
	Added error code AS.1067 to Error Codes.
2018-07-30	This issue is the seventh official release, which incorporates the following changes:
	Added 10s and 1 min as new options for the health check period to Creating an AS Group.

Released On	Description
2018-05-30	This issue is the sixth official release, which incorporates the following changes:
	Added parameter security_groups to AS Configurations.
	 Added parameter meta_data to Querying an AS Policy (V2).
	Added Batch Managing AS Policies.
	 Added parameter meta_data to Querying AS Policy Execution Logs.
	 Modified error codes AS.3004, AS.3008, AS.3009, AS.3010, and AS.3033 in Error Codes.
	 Added error codes AS.0026, AS.3045, AS.3046, AS.3047, AS.3048, and AS.3049 to Error Codes.
2018-04-30	This issue is the fifth official release, which incorporates the following changes:
	 Added description of health_periodic_audit_grace_period to Creating an AS Group.
	 Added description of health_periodic_audit_grace_period to Modifying an AS Group.
	Added the scaling_policy_id field to Querying AS Policies Bound to an AS Group.
	Added the scaling_policy_id and scaling_policy_name fields to Querying Scaling Action Logs.
	 Added error codes AS.2046, AS.7044, AS.7045, AS.7047, AS.7048, AS.7049, AS.7050, and AS.7055 to Error Codes.
2018-03-30	This issue is the fourth official release, which incorporates the following changes:
	Added Creating an AS Policy (V2).
	Added Modifying an AS Policy (V2).
	 Added Querying AS Policies Bound to a Scaling Resource (V2).
	Added Querying an AS Policy (V2).
	Added AS Policy Execution Logs.
2018-01-30	This issue is the third official release, which incorporates the following changes:
	Added the field "Description" to Batch Managing Instances.
	Added the parameters for forcibly deleting an AS group and their description to Deleting an AS Group .
	Added a description of the typical ELB to AS Groups.
	Added the parameter snapshot_id to AS Configurations . Outlined descriptions of arranged descriptions.
	Optimized descriptions of error codes.

Released On	Description
2017-11-30	This issue is the second official release, which incorporates the following changes:
	Added the function of increasing or decreasing the number of instances in an AS group according to the percentage preset in the AS policy.
	Added AS monitoring metrics.
	 Added the following error codes: AS.1019, AS.1020, AS.1053 to AS.1061, AS.2042, AS.2043, AS.3035, and AS.3036.
	 Added parameters dedicated_storage_id and data_disk_image_id.
2017-12-31	This issue is the first official release.