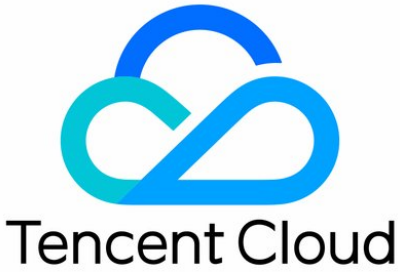
Auto Scaling

API Documentation

Product Introduction



Contents

API Documentation Introduction

Last updated：2017-12-06 10:51:13

Welcome to use Tencent Cloud Auto Scaling (AS)!
Auto Scaling (AS) can automatically adjust computing resources according to users' business needs and policies. AS can properly increase or decrease CVM instances and complete the configuration based on the scheduled, periodic or monitoring policies specified by users. It can automatically increase CVM instances to ensure smooth and healthy business operations when business demands are soaring, and reduce CVM instances to save resources and costs when business demands are decreasing.
Users can perform such operations such as managing scaling groups and setting scaling configurations. For information on supported operations, please refer to API Overview.
Before using these APIs, please make sure that you have a thorough understanding of AS Product Overview and calling methods.

1. Glossary

To allow you to get familiar with auto scaling services more quickly, we provide the definitions of some commonly used terms in the following table:

Term	Full Name	Full Name	Description
AS	Auto Scaling	Auto Scaling	A management service that can automatically adjust computing resources based on users' business needs and policies.
scalingGroup	Scaling Group	Scaling Group	A collection of CVM instances that follow the same rule and apply to the same scenario.
scalingConfiguration	Scaling Configuration	Scaling Configuration	The scaling configuration is a template for automatically creating a CVM.
scalingScheduledTask	Scaling Scheduled Task	Scaling Scheduled Task	Perform AS activities as scheduled.
scalingPolicy	Scaling Alarm Policy	Scaling Alarm Policy	Automatically perform AS activities based on cloud monitoring metrics.
cooldown	Cooldown Period	Cooldown Period	A period of time when the corresponding scaling group is locked after a scaling activity is completed.

2. API Quick Start

To use AS API, you need to complete at least the following three steps:

1. Create scaling configuration
   You can use API Create Scaling Configuration to create scaling configuration. It defines the configuration of a CVM instance automatically created through auto scaling.

2. Create a scaling group
   You can use API Create a Scaling Group to create a scaling group. You can specify the number of instances in the scaling group, select a scale-down policy to remove CVM instances, and select whether to add the scaling group to cloud load balance, etc.
3. Create a scaling policy
   After creating a scaling group, you need to specify a scaling policy for the group, i.e., a policy to increase or decrease CVM instances according to your actual needs. You can use API Create an Alarm Policy to create an alarm trigger policy to perform scaling activities based on cloud monitoring metrics (such as CPU utilization, and memory usage). You can also use API Create a Scheduled Task to create a scheduled task that can be used to perform scaling activities as scheduled, and you can also set to execute the scheduled task periodically.

3. Service Limits

Currently, all users may use auto scaling service in any scenarios.

Update history

Last updated：2017-04-13 09:26:18

Release Time	Update	Description
2016-9-23	Life cycle hook-related APIs were added	1. API CreateLifeCycleHook was added for creating life cycle hook configurations 2. API DescribeLIfeCycleHook was added for querying life cycle hook configurations 3. API DeleteLifeCycleHook was added for deleting life cycle hook configurations 4. API ModifyLifeCycleHook was added for modifying life cycle hook configurations 5. API AttachLifeCycleHookId was added for binding a life cycle hook to a scaling group 6. API DetachLifeCycleHookId was added for unbinding a life cycle hook from a scaling group 7. API CompleteLifeCycleHookAction was added for notification about the completion of life cycle hook callback 8. API RecordLifeCycleHookTimeout was added for renewing life cycle hook timeout
2016-9-14	Notification-related APIs were added	1. API DescribeScalingNotification was added for querying notification configurations 2. API CreateScalingNotification was added for creating notification configurations 3. API DeleteScalingNotification was added for deleting notification configurations 4. API ModifyScalingNotification was added for modifying notification configurations

API Overview

Last updated：2017-04-13 09:26:46

1. Scaling Configuration-related APIs

API	Action Name	Description
Create Scaling Configuration	CreateScalingConfiguration	Create a new scaling configuration and the user can specify its name and the CVM instance configuration it uses, and so on.
Query Scaling Configuration	DescribeScalingConfiguration	Query the details of the corresponding scaling configuration based on the user input information, such as the scaling configuration ID, name, and so on.
Delete Scaling Configuration	DeleteScalingConfiguration	Delete the corresponding scaling configuration according to the scaling configuration ID.

2. Scaling Group-related APIs

API	Action Name	Description
Create Scaling Group	CreateScalingGroup	Create a new scaling group, and the user can specify its name, the maximum and minimum group size and so on.
Query Scaling Group List	DescribeScalingGroup	Query the details of the corresponding scaling group based on user input information such as the scaling group ID, name and so on.
Modify Scaling Group	ModifyScalingGroup	Modify scaling group configuration, such as its name, the maximum and minimum scalability and so on.
Query CVM Bound to Scaling Group	DescribeScalingInstance	Query the details of CVM bound to the scaling group based on its ID.
Bind CVM to Scaling Group	AttachInstance	Bind CVM to scaling group based on the CVM ID and scaling group ID.
Unbind CVM from Scaling Group	DetachInstance	Unbind CVM from scaling group based on the CVM ID and scaling group ID.

Delete Scaling Group | DeleteScalingGroup | Delete the corresponding scaling group according to its ID. |

3. Alarm Trigger Policy-related APIs

API	Action Name	Description
Create Alarm Trigger Policy	CreateScalingPolicy	Create a new alarm trigger policy that allows users to create a scaling policy for a specific scaling group based on the scaling group ID.

API	Action Name	Description
Query Alarm Trigger Policy	DescribeScalingPolicy	Query the specific scaling strategy used in the scaling activity triggered by the alarm according to the scaling group ID.
Delete Alarm Trigger Policy	DeleteScalingPolicy	Delete a specific scaling policy in the specified scaling group based on the scaling group ID and the scaling policy ID.

4. Scheduled Task-related APIs

API Function	Action Name	Function Description
Creates Scheduled Task	CreateScheduledTask	Creates a new scheduled task. The user can create a specific scheduled task for the specified scaling group according to the scaling group ID.
Query Scheduled Task	DescribeScheduledTask	Query the details of all or specific scheduled tasks in a scaling group based on the scaling group ID or scheduled task ID.
Modify Scheduled Task	ModifyScheduledTask	Modify the scheduled task configuration, such as modifying the scheduled task name, and setting the maximum and minimum size of the scaling group when the scheduled task is triggered.

Delete Scheduled Task | DeleteScheduledTask | Delete a specific scheduled task in a specific scaling group based on the scaling group ID and the scheduled task ID. |

5. Notification-related APIs

API Function	Action Name	Function Description
Create Notification	CreateScalingNotification	Create a new notification; the user can create a specific scaling activity result notification for the specified scaling group according to the scaling group ID.
Query Notification	DescribeScalingNotification	Query the details of all or specific notifications in a scaling group based on the scaling group ID or notification ID.
Modify Notification	ModifyScalingNotification	Modify notification configuration, such as the notification type or recipient, and so on.
Delete notification	DeleteScalingNotification	Delete a specific notification in a specific scaling group based on the scaling group ID and notification ID.

6. Lifecycle Hook-related APIs

API Function	Action Name	Function Description

API Function	Action Name	Function Description
Create Lifecycle Hook	CreateLifeCycleHook	You can create up to 10 lifecycle hooks for each scaling group, but only one lifecycle hook takes effect at a time (you can call API "Bind Lifecycle Hook" to trigger the lifecycle hook to take effect).
Modify Lifecycle Hook	ModifyLifeCycleHook	Modify the parameters of a lifecycle hook, including the name, timeout, default timeout action, callback trigger condition, and notification group of the life cycle hook.
Query Lifecycle Hook	DescribeLIfeCycleHook	Query all lifecycle hooks or a specific lifecycle hook under a user group.
Delete lifecycle Hook	DeleteLifeCycleHook	Delete a specific lifecycle hook in the scaling group.
Bind Lifecycle Hook	AttachLifeCycleHookId	Bind the lifecycle hooks to the scaling group, activating the lifecycle hook that the scaling group currently needs to use.
Unbind Lifecycle Hook	DetachLifeCycleHookId	Unbind lifecycle hooks from the scaling group; if you need to activate the lifecycle hooks, you should rebind them
Lifecycle Hook Callback Completion Notification	CompleteLifeCycleHookAction	This API is used to complete the lifecycle hook callback in advance.
Lifecycle Hook Timeout Renewal	RecordLifeCycleHookTimeout	It is used to renew a lifecycle hook timeout.

Calling Methods
Request Structure
Request Structure

Last updated：2017-12-06 10:46:53

The process of calling Tencent Cloud APIs is achieved by sending requests to the server IP addresses of these APIs and adding relevant request parameters in the requests as described in the API descriptions. A request for calling Tencent Cloud API is made up of the following elements:

1. Service Address

The service connection address of Tencent Cloud APIs depends on the modules. For details, refer to the descriptions of each API.

2. Communication Protocol

Most Tencent Cloud APIs communicate over HTTPS to provide high-security channels.

3. Request Method

Tencent Cloud APIs support both POST and GET requests.
**Note:

1. The two methods cannot be used at the same time. If GET method is used, parameters are obtained from Querystring. If POST method is used, parameters are obtained from Request Body, and the parameters in Querystring will be ignored. The rules for parameter formats are the same for both methods. Generally, GET method is used. If the parameter strings are too long, POST method is used.
2. If GET method is used, all request parameters need to be encoded with URL encoding. This is not needed if POST method is used.**

4. Request Parameters

Two types of parameters are needed for each Tencent Cloud API request - common request parameters and API request parameters. Common request parameters are the parameters common to all APIs (For more information, refer to Common Request Parameters section), while API request parameters are parameters specific to each API (For more information, refer to "Request Parameters" description of each API.)

5. Character Encoding

All requests for Tencent Cloud APIs and their returned results are encoded using UTF-8 character set.

Common Request Parameters

Last updated：2018-08-14 18:04:38

A complete Tencent Cloud API request requires two types of request parameters: common request parameters and API request parameters. This document describes 6 common request parameters used in Tencent Cloud API requests. For more information about API request parameters, please see API Request Parameters.
Common request parameters are required in every API. When developers use Tencent Cloud APIs to send requests, they should make sure that the requests carry these common request parameters. Otherwise, the requests will fail. The initial letter of each common request parameter is in uppercase so that it can be differentiated from API request parameters.

Common request parameters are as follows:

> **Note:**
> This document illustrates APIs specific to Tencent Cloud CVMs. For APIs specific to other Tencent Cloud products, please see the relevant documents.

Parameter Name	Description	Type	Required
Action	The name of the API for the desired operation. For example, when a Tencent Cloud CVM user calls the API Query Instance List, the Action parameter is DescribeInstances.	String	Yes
Region	Region parameter, which is used to identify the region to which the instance you want to work with belongs. For more information, please see Regions and Availability Zones, or use the API Query Region List. **Note:** 1. Unless otherwise specified in the API document, this parameter is required generally. 2. Some of the regions are under internal trial and only available to certain users.	String	No
Timestamp	The current UNIX timestamp that records the time at which the API request was initiated.	UInt	Yes
Nonce	A random positive integer that is used in conjunction with Timestamp to prevent replay attacks.	UInt	Yes
SecretId	The SecretId that is applied for under Cloud API Key to identify identity. A SecretId corresponds to a unique SecretKey, which is used to generate the request Signature. For more information, please see Signature Method.	String	Yes
Signature	Request signature, which is used to verify the validity of the request. The signature must be computed based on input parameters. For more information, please see Signature Method.	String	Yes
SignatureMethod	Signature method. Supported methods include HmacSHA256 and HmacSHA1. The HmacSHA256 method is used to verify signatures only when the parameter is specified as HmacSHA256. Otherwise, HmacSHA1 is used. For more information, please see Signature Method.	String	No
Token	The token used for the temporary certificate, which must be used together with a temporary key. No token is required for a long-term key.	String	No

Use Case

The following example shows how common request parameters look like in an API request link for a Tencent Cloud product. If, for example, you want to query the list of Tencent Cloud CVM instances in the Guangzhou region, the request link should look like this:

```
https://cvm.api.qcloud.com/v2/index.php?
Action=DescribeInstances
&SecretId=xxxxxxx
&Region=ap-guangzhou
&Timestamp=1465055529
&Nonce=59485
&Signature=mysignature
&SignatureMethod=HmacSHA256
&<API request parameters>
```

API Request Parameters

Last updated：2017-12-18 10:19:36

API request parameters are specific to each API. This means that different APIs support different API request parameters. The first letter of each API request parameter is in lowercase so that the parameters can be differentiated from common request parameters.

Take the Query List of Instances(DescribeInstances) API as an example. It supports the following API request parameters:

Parameter Name	Required	Type	Description
instanceIds.n	No	String	An array containing the IDs of CVM instances to be queried. Array subscript starts from 0. You can use either instanceId or unInstanceId. The unified resource ID unInstanceId is recommended.
lanIps.n	No	String	Array of private IPs of the CVMs to be queried.
searchWord	No	String	CVM alias set by the user.
offset	No	Int	Offset. Default is 0.
limit	No	Int	The maximum number of servers allowed to be queried at a time. Default is 20, and the maximum is 100.
status	No	Int	Status of the CVM to be queried.
projectId	No	String	Project ID. If this parameter is left empty, the CVM instances of all projects will be queried. 0 means default project. To specify other projects, you can call the Query Project List API to query projects.
simplify	No	Int	Obtain non-real time data if simplify=1 is added when passing parameters.
zoneId	No	Int	ID of availability zone. If this parameter is left empty, the CVM instances of all availability zones will be queried. To specify availability zones, you can call the Query Availability Zones(DescribeAvailabilityZones) API to query availability zones.

Here are the descriptions of each field:

Parameter Name	Name of request parameter supported by the API. The user can use this name as an API request parameter when using this API. Note: When a parameter name ends with ".n", it means the parameter is an array, and you need to pass the array parameters in sequence when using it. For example, for the API "Query List of Instances" (DescribeInstances), if you pass the parameter instanceIds.0=ins-0hm4gvho&instanceIds.1=ins-0hm4gvho, only CVM instances with IDs of ins-0hm4gvho and ins-0hm4gvho will be queried.
Required	Indicates whether this parameter is mandatory. "Yes" means the parameter is mandatory for the API, while "No" means the parameter is not mandatory. For the API "Query List of Instances" (DescribeInstances), all the API request parameters are not required, which means you can call the API successfully simply by using common request parameters.
Type	Data type of the API parameter.
Description	A brief description of the API request parameter.

If a user wants to query the list of scaling groups, the request link may be as follows:

```
https://cvm.api.qcloud.com/v2/index.php?
&<Common request parameters>
&instanceIds.0=ins-0hm4gvho
&instanceIds.1=ins-8oby8q00
&offset=0
&limit=20
&status=2
&zoneId=100003
```

A complete request needs two types of request parameters: common request parameters and API request parameters. Only API request parameters are listed here. For information on common request parameters, refer to Common Request Parameters section.

Final Request Format

Last updated：2017-12-20 15:33:52

The final request URL is made up of the following elements:
1) Request domain: The request domain for Query List of Instances(DescribeInstances) is cvm.api.qcloud.com. The actual request domain varies depending on the module to which the API belongs. For more information, refer to the descriptions of each API.
2) Request path: The request path of Cloud API is always /v2/index.php.
3) Final request parameter string: This includes common request parameters and API request parameters.

The final request URL is generated as follows:

```
https:// + request domain + request path + ? +final request parameter string
```

The final request URL is as follows. The first six parameters are common request parameters, and the last six ones are API request parameters.

```
https://cvm.api.qcloud.com/v2/index.php?
Action=DescribeInstances
&SecretId=xxxxxxx
&Region=gz
&Timestamp=1465055529
&Nonce=59485
&Signature=mysignature
&instanceIds.0=ins-0hm4gvho
&instanceIds.1=ins-8oby8q00
&offset=0
&limit=20
&status=2
&zoneId=100003
```

Returned Results
Returned Structure

Last updated：2017-12-06 11:19:50

When sending the URL of the Final Request to call the cloud API, you will get a return result consisting of two parts: common return parameters and instruction return parameters. Common return parameters are the parameters common to all APIs (For more information, refer to Common Return Parameters section), while instruction request parameters are parameters specific to each API (For more information, refer to "Output Parameters" description of each API.)

Final Returned Format

Last updated：2017-12-06 11:21:20

As described in Description of Return Structure, a complete return result of an API consists of Common Return Parameters and Instruction Return Parameters. The common return parameters are returned each time the API is called, while the instruction return parameters are specific to each API.

Take calling View Scaling Group List(DescribeScalingGroup) API via Final Request as an example, the possible return results when the call succeeds and fails are as follows:

1. Return Parameters When API Call Succeeds

If the API call succeeds, the final return parameters will include both common return parameters and instructions return parameters, the error code will be 0, and the message field for error information will be empty.


```
{
"code": 0,
"message": "",
"data": {
"totalCount": 1,
"scalingGroupSet": [
{
"scalingGroupId": "asg-d4hmoms6",
"scalingGroupName": "test",
"scalingConfigurationId": "asc-hq6jo6h4",
"scalingConfigurationName": "test",
"minSize": 0,
"maxSize": 1,
"createTime": "2016-06-04 23:58:03",
"instanceNum": 0,
"removePolicy": "RemoveOldestInstance",
"loadBalancerIdSet": [],
"vpcId": 0,
"subnetIdSet": [],
"zoneIdSet": [
{
"status": 1,
"owner": "1251707795",
"zoneId": 100002
}
],
"projectId": 0
}
]
}
}
```


2. Return Parameters When API Call Fails

If the API call fails, the final return parameters will only include common return parameters, the error code will not be 0, and the message field will displays detailed error information.

```
{
"code": XXXX,
"message": "(XXXX)XXXXX",
}
```

Common Returned Parameters

Last updated：2017-12-06 11:25:20

Common return parameters are the parameters that will be returned each time the cloud API is called. These parameters are discussed in the document for each API. Here's a list of common return parameters:

Name	Type	Description
code	Int	Error code when calling cloud API. A code of 0 means the API call succeeded. Other values means the call failed. For information, refer to Error Codes page.
message	String	Detailed error message, which varies depending on different APIs.

Take Query Scaling Group List(DescribeScalingGroup) as an example, the possible common return parameters when the API call succeeds or fails are as follows:

1. Common Return Parameters When API Call Succeeds

If the API call succeeds, the common return parameters will be in the following format:

```
{
"code":"0",
"message":"",
<Instruction return parameters>
}
```

An error code of 0 means the API call succeeded. In addition, since the API call succeeded, the message field for error information will be empty.

2. Common Return Parameters When API Call Fails

If the API call fails, the common return parameters will be in the following format:

```
{
"code":"XXXX",
"message":"(XXXX)XXXXX",
<Instruction return parameters>
}
```

The error code is not 0, which means the API call failed. In addition, since the API call failed, the message field will display detailed error information.

Instruction Returned Parameters

Last updated：2017-12-06 11:27:40

Instruction return parameters are specific to each API. Different APIs support different instruction return parameters. Take Query Scaling Group List(DescribeScalingGroup) as an example, the instruction return parameters are listed as follows:

Parameter Name	Type	Description
code	Int	Error code; 0: Succeeded; other values: Failed. For more information, refer to Error Code page.
message	String	Error message description depending on API
data	Array	Output result, scaling group list information queried

Parameter data is composed of the following parameters:

Parameter Name	Type	Description
totalCount	Int	Number of scaling groups returned for the query
scalingGroupSet	Array	Set containing scaling group information

scalingGroupSet contains information about a number of scaling groups, and the information about each scaling group is composed of the following parameters:

Parameter Name	Type	Description
scalingGroupId	String	Scaling group ID
scalingGroupName	String	Scaling group name
scalingConfigurationId	String	Scaling configuration ID
scalingConfigurationName	String	Scaling configuration name
minSize	Int	Minimum group size
maxSize	Int	Maximum group size
createTime	String	Creation time of scaling group
instanceNum	Int	Number of hosts
removePolicy	String	Remove policy 1. RemoveOldestInstance means the oldest policy will be removed 2. RemoveNewestInstance means the latest policy will be removed
loadBalancerIdSet	Array	Cloud Load Balancer information of scaling group
vpcId	int	ID of the VPC to which the scaling group belongs
subnetIdSet	Array	Subnet information of scaling group
zoneIdSet	Array	Region information of scaling group

Parameter Name	Type	Description
projectId	Int	Project ID of scaling group

loadBalancerIdSet indicates Cloud Load Balancer information of the scaling group, and is composed of the following parameters: Empty parameter means Cloud Load Balancer is not used.

Parameter Name	Type	Description
status	Int	Cloud Load Balancer status
loadBalancerId	String	ID of Cloud Load Balancer
owner	String	Account of Cloud Load Balancer owner
zoneId	Int	Region of Cloud Load Balancer

subnetIdSet indicates subnet information of the scaling group, and is composed of the following parameters. Empty parameter means subnet is not used.

Parameter Name	Type	Description
status	Int	Subnet status
subnetId	String	Subnet ID
owner	String	Account of subnet owner
zoneId	Int	Region of subnet

zoneIdSet indicates zone information of the scaling group, and is composed of the following parameters:

Parameter Name	Type	Description
status	Int	Status information
owner	String	Owner account
zoneId	Int	Region

Take calling API via Final Request as an example, the possible instruction return parameters when the call succeeds and fails are as follows:

1. Instruction Return Parameters When API Call Succeeds

If the API Call succeeds, the instruction return parameters will be in the following format:

```
{
<Common return parameters>,
"data": {
"totalCount": 1,
"scalingGroupSet": [
```

```
{
"scalingGroupId": "asg-d4hmoms6",
"scalingGroupName": "test",
"scalingConfigurationId": "asc-hq6jo6h4",
"scalingConfigurationName": "test",
"minSize": 0,
"maxSize": 1,
"createTime": "2016-06-04 23:58:03",
"instanceNum": 0,
"removePolicy": "RemoveOldestInstance",
"loadBalancerIdSet": [],
"vpcId": 0,
"subnetIdSet": [],
"zoneIdSet": [
{
"status": 1,
"owner": "1251707795",
"zoneId": 100002
}
],
"projectId": 0
}
]
}
}
```


2. Instruction Return Parameters When API Call Fails

If the API call fails, no instruction return parameters will be included in the return result:

```
{
<Common return parameters>,
}
```

Correct Result

Last updated：2017-10-17 17:29:21

If the API call succeeds, the error code in the returned result will be 0, the error message field will be empty, and the returned data result will be displayed.
Example:

```
{
"code": 0,
"message": "",
<Returned result data>
}
```

Wrong Result

Last updated：2017-12-06 11:47:26

If the API call fails, the error code in the returned result will not be 0, and the message field will display detailed error information. Users can query detailed error information from the Error Code page based on code and message.
Example of returned error:

```
{
"code": 5100,
"message": "(100004) incorrect projectId",
}
```

Error Codes

Last updated：2018-06-14 14:44:24

1. Common Error Code

The error code in the returned result indicates the result of user's call to the cloud API. code is common error code, which applies to APIs of all modules. A code of 0 means the call succeeded. Other values means the call failed. If the call fails, the user can find out the cause of the error based on the following table and take appropriate actions.

Error Code	Error Type	Description
4000	Invalid request parameter	Required parameters are missing, or parameter valuesare not in the correct format. Refer to the error description in "message" field for detailed error message.
4100	Authentication failed	Signature authentication failed. Please refer to the Authentication section in the document.
4200	Request expired	The request has expired. Please refer to the Request Validity Period section in the document.
4300	Access denied	Account is suspended or not within the user range of the API.
4400	Quota exceed	The number of requests exceeds the quota. Please refer to the Request Quota section in the document.
4500	Replay attack	The Nonce and Timestamp parameters can ensure that each request will be executed only once on the server. Therefore, the Nonce value cannot be the same as last one, and the difference between Timestamp and Tencent server time cannot be greater than 2 hours.
4600	Protocol is not supported	The protocol is not supported. Please refer to the relevant document.
5000	Resource does not exist	The instance corresponding to resource ID does not exist, or the instance has been returned, or another user's resource is accessed.
5100	Resource operation failed	The operation performed on the resource failed. For specific error message, see the message field in error description. Try again later or contact customer service personnel for help.
5200	Failed to purchase resource	Resource purchase failed. This may be caused by unsupported instance configuration or insufficient resource.
5300	Failed to purchase resource	Resource purchase failed because of insufficient balance.
5400	Part of operations performed successfully	Part of the batch operations have been performed successfully. For more information, refer to the returned value of method.
5500	User failed to	Resource purchase failed because the user failed to pass identity verification.

	pass identity verification	
6000	Internal server error	An internal error occurred on the server. Try again later or contact customer service personnel for help.
6100	Not supported by the version	This API is not supported in this version or the API is under maintenance. Note: When this error occurs, first check whether the domain of the API is correct. Different modules may have different domains.
6200	API is temporarily unavailable	The API is under maintenance and is unavailable. Please try again later.

2. Module Error Code

message field indicates errors related to modules.

Example:

"message": "(100004) incorrect projectId"

It consists of two parts - the string within () indicates the module error code, and the string following () is the error description.

Different modules may produce different errors. The user can identify the cause of error based on error description.

Returned Values
Returned Format for Async Task APIs

Last updated：2017-04-20 15:21:21

1. Format of Returned Results for Common Asynchronous Task APIs

You can only operate asynchronous task APIs for one resource in each request, for example, creating load balance or resetting host operating system, and so on.

Name	Type	Description	Required
code	Int	Error code of the returned result. 0: Succeed; other values: Failed.	Yes
message	String	Error message of the returned result	No
requestId	String	Task ID	Yes

2. Format of Returned Results for Batch Asynchronous Task APIs

You can operate asynchronous task APIs for multiple resources in each request, for example, changing passwords, starting machines, stopping machines, and so on.

Name	Type	Description	Required
code	Int	Error code of the returned result. 0: Succeed; other values: Failed.	Yes
message	String	Error message of the returned result	No
detail	Array	The code, message, and requestId of the operation performed on the resource ("key" is resource ID)	Yes

For example:

```
{
"code":0,
"message": "success",
"detail":
{
"qcvm6a456b0d8f01d4b2b1f5073d3fb8ccc0":
{
"code":0,
"message":"",
"requestId":"1231231231231":,
}
"qcvm6a456b0d8f01d4b2b1f5073d3fb8ccc0":
{
"code":0,
"message":"",
"requestId":"1231231231232":,
```

```
}
}
}
```

Note:
If all operations performed on the resource succeed, the outermost code will be 0
If all operations performed on the resource fail, the outermost code will be 5100
If part of operations performed on the resource fail, the outermost error code will be 5400
In the third case, the terminal can obtain the information about failed operations by using the detail field.

Signature Method

Last updated：2018-07-04 11:41:15

Tencent Cloud API will perform identity authentication on each access request, so each request is required to include signature information in the common request parameter for user authentication. The signature is generated with the user's security credential, which consists of a SecretId and a SecretKey. Users with no security credential can apply for a credential from the Tencent Cloud official website. Otherwise they will not be able to call cloud APIs.

1. Applying for Security Credential

Before using Cloud APIs for the first time, a user needs to apply for a security credential in the Tencent Cloud CVM console. Security credential consists of a SecretId and a SecretKey, where:

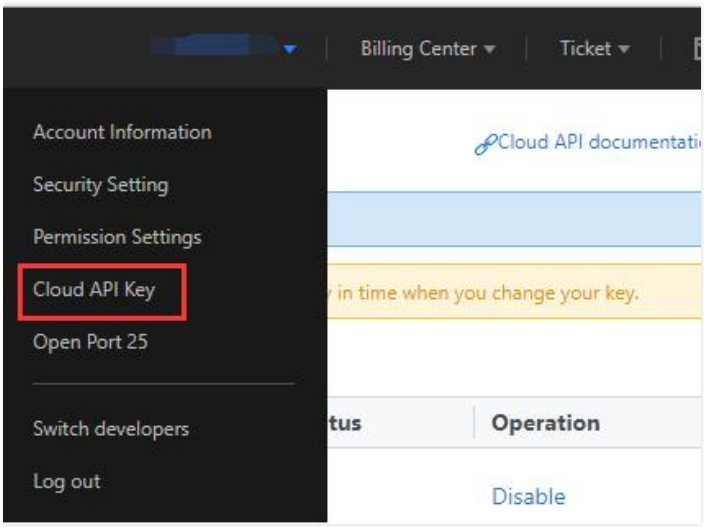
> SecretId is used to identify the API caller;
>
> SecretKey is a private key used to encrypt signature string, and is also used by the server to verify the signature string.

Note: API private key is an important credential when building Tencent Cloud API requests. With Tencent Cloud APIs, you can operate all of your Tencent Cloud resources under your account. To keep your property and services secure, please keep the private key well and change it on a timely basis (if you do, delete the old key in time).

To apply for a security credential, please proceed as follows:

1) Log in to the Tencent Cloud Console.

2) Select account name in the top right corner on the navigation bar, and choose "Cloud API Key" in the drop-down box to access the Cloud API key management page.



3) On the Cloud API Key Management page, click "New" to create a pair of SecretId/SecretKey.

> A developer account can have two pairs of SecretId/SecretKey at most.

QQ accounts that are added as sub-users by a developer can apply for different security credentials on different developer consoles.

Currently, the security credential of a sub user can only be used to call some of cloud APIs.

2. Generating Signature String

With the SecretID and SecretKey, a signature string can be generated. The following procedure is a detailed example for generating a signature string.

Assume that a user has the following SecretId and SecretKey:

SecretId: AKIDz8krbsJ5yKBZQpn74WFkmLPx3gnPhESA

SecretKey: Gu5t9xGARNpq86cd98joQYCN3Cozk1qA

Note: This is just an example. Please proceed with your actual SecretId and SecretKey!
Take View List of Instances (DescribeInstances) as an example. The possible request parameters are as follows when this API is called:

Parameter Name	Description	Parameter Value
Action	Method name	DescribeInstances
SecretId	Private Key ID	AKIDz8krbsJ5yKBZQpn74WFkmLPx3gnPhESA
Timestamp	Current timestamp	1465185768
Nonce	Random positive integer	11886
Region	Region where the instance is located	gz
instanceIds.0	ID of the instance to be queried	ins-09dx96dg
offset	Offset value	0
limit	Maximum number of outputs allowed	20

According to the above table, among the request parameters, there are only 5 common request parameters (Action, SecretId, Timestamp, Nonce and Region), instead of 6 ones as described in "Common Request Parameters". Actually, the sixth parameter Signature (signature string) is generated from the other parameters (including instruction request parameters) using the following procedure:

2.1. Sorting Parameters

First, sort all request parameters in ascending lexicographical order by their names, just like sorting words in a dictionary in ascending alphabetical order or numerical order. That is to say, sort the parameters by their first letters, then by their second letters if their first letters are the same, and so on. You can complete the sorting process using relevant sorting functions in programming language, such as the ksort function in PHP. The sorting result of the above sample parameters is as follows:

```
{
'Action' : 'DescribeInstances',
'Nonce' : 11886,
'Region' : 'gz',
'SecretId' : 'AKIDz8krbsJ5yKBZQpn74WFkmLPx3gnPhESA',
'Timestamp' : 1465185768,
'instanceIds.0' : 'ins-09dx96dg',
'limit' : 20,
'offset' : 0,
}
```

Any other programming language can be used to sort these parameters as long as the same result is produced.

2.2. Generating Request String

This step is used to generate a request string.
Format the above sorted parameters as "parameter name"="parameter value". Take the parameter "Action" as an example. If the parameter value is "DescribeInstances", the resulting format will be "Action=DescribeInstances".
Note: 1. "Parameter value" is the original value instead of url encoded value. 2. If the input parameter contains an underscore"_", you need to convert it to ".".

Then, joint the formatted parameters together using "&" to generate the final request string:

```
Action=DescribeInstances&Nonce=11886&Region=gz&SecretId=AKIDz8krbsJ5yKBZQpn74WFkmLPx3gnPhESA&Timestamp=1465185768&instanceIds.0=ins-09dx96dg&limit=20&offset=0
```

2.3. Generating Original Signature String

This step is used to generate an original signature string.
The original signature string is composed of the following parameters:

1) Request method: POST and GET methods are supported. In this case, we use a GET request. Note that the method must be in uppercase.
2) Request CVM: The request domain for View List of Instances (DescribeInstances) is cvm.api.qcloud.com. The actual request domain varies depending on the module to which the API belongs. For more information, refer to the descriptions of each API.
3) Request path: The request path of Cloud API is always /v2/index.php.
4) Request string: This is the request string generated in the previous step.

Combination rule of original signature string:

```
Request method + Request CVM +Request path + ? + Request string
```

The combination result is as follows:

```
GETcvm.api.qcloud.com/v2/index.php?Action=DescribeInstances&Nonce=11886&Region=gz&SecretId=AKIDz8krbsJ5yKBZQpn74WFkmLPx3gnPhESA&Timestamp=1465185768&instanceIds.0=ins-09dx96dg&limit=20&offset=0
```

2.4. Generating Signature String

This step is used to generate a signature string.
Sign the **original signature string** obtained in the previous step using HMAC-SHA1 algorithm, then encode the generated

signature string using Base64 to obtain the final signature string.

For example, the codes are as follows if written in PHP:

```
$secretKey = 'Gu5t9xGARNpq86cd98joQYCN3Cozk1qA';
$srcStr = 'GETcvm.api.qcloud.com/v2/index.php?Action=DescribeInstances&Nonce=11886&Region=gz&SecretId=AKIDz8krbsJ5yKBZQpn74WFkmLPx3gnPhESA&Timestamp=1465185768&instanceIds.0=ins-09dx96dg&limit=20&offset=0';
$signStr = base64_encode(hash_hmac('sha1', $srcStr, $secretKey, true));
echo $signStr;
```

The final signature string is:

```
NSI3UqqD99b/UJb4tbG/xZpRW64=
```

When another programming language is used, you can perform the signature verification using the original signature string in the above example as long as the resulting signature string is identical to the one in the example.

3. Encoding Signature String

The generated signature string cannot be directly used as a request parameter, and needs to be encoded with URL encoding. For example, the signature string generated in the previous step is: NSI3UqqD99b/UJb4tbG/xZpRW64=. When encoded, it should be: NSI3UqqD99b/UJb4tbG/xZpRW64=. The resulting signature string request parameter (Signature) is NSI3UqqD99b/UJb4tbG/xZpRW64=, which will be used to generate the final request URL.
Note: If the user used GET method, all request parameters need to be encoded with URL encoding. Some language libraries will automatically encode URLs. Reduplicate encoding will cause signature authentication to fail.

4. Authentication Failure

The following table lists possible errors when authentication fails:

Error code	Error type	Error description
4100	Authentication failed	Signature verification failed. Please make sure that the Signature in the request parameter is calculated correctly. This may also be caused by incorrect private key status, make sure the API key is valid and is not disabled.
4101	Not authorized by the developer to access this API	The sub user is not authorized to call the API. Please contact the developer for authorization. For details, refer to Authorization Policy.
4102	Not authorized by the developer to access the resources operated by the API	The user is not authorized by the developer to access some of the resources among the resource parameters. Please check the message field for the ID of resources that you're not authorized to access.

Please contact the developer for authorization. For details, refer to Authorization Policy. |
| 4103 | The API is currently not available for SecretId of a non-developer | The sub-user with this SecretID cannot call this API. Only the developer is authorized to call this API. |

APIs for Startup Configuration
Creating Startup Configuration

Last updated：2018-09-19 11:01:44

1. API Description

This API (CreateScalingConfiguration) is used to create new scaling configurations. Domain for API request: scaling.api.qcloud.com

1) The specified CVM instance specification must be consistent with the instance specification of the active scaling configurations in the scaling group.

2) The scaling configuration cannot be edited or modified. If you want to use a new scaling configuration, you must recreate one.

3) When creating a scaling configuration, an image must be selected to determine the system disk configuration of the new created instance. The image contains the operating system and application software configuration. After the instance is created based on the image, the system disk of this instance is the full clone of the image.

4) When creating a scaling configuration, a security group must be specified. The number of instances in the same security group can not exceed 1000. Otherwise, if you specify the security group when creating an instance, a failure screen will appear.

5) When creating an instance, the system shall allocate a system disk of the corresponding size to the system based on the specified image.

6) The system disk type is the same as the data disk type.

7) A maximum of 20 scaling configurations can be created for each project. For more information, refer to Service Limits.

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is CreateScalingConfiguration.

Parameter Name	Required	Type	Description
scalingConfigurationName	Yes	String	Scaling configuration name defined by the user.
imageId	Yes	String	Image ID. Please fill in the unImgId (unified ID of image) field returned by Query Image (DescribeImages) API.
cpu	Yes	Int	The number of CPU cores, whose optional number may vary in different regions. For more information, refer to CVM Instance Configuration.
mem	Yes	Int	The size of memory (in GB), whose optional size may vary in different regions. For more information, refer to CVM Instance Configuration.
storageType	Yes	Int	Data disk type. Only five values are available: 1 means local disk; 2 means cloud disk; 3 means local SSD; 5 means cloud SSD; 6 means premium cloud disk.

Parameter Name	Required	Type	Description
storageSize	Yes	Int	Data disk size (GB). The increment is 10 GB. For local disks, the optional range is 0-500 G; for cloud disks, the optional range is 0-4000 G. The specific restrictions for detailsCategories
bandwidthType	Yes	String	Bandwidth type. Only two values are available: PayByHour indicating charge by bandwidth usage time and PayByTraffic indicating charge by traffic. If it is a bandwidth package user, the value of this parameter will be ignored.
bandwidth	Yes	Int	Public network bandwidth (in Mbps). 0 means that public network bandwidth is not enabled. The upper limit of the bandwidth of different models is inconsistent. For details, see the Public Network Bandwidth Limit. If it is a bandwidth package user, this parameter ranges from 0-200 or 65535. 65535 indicates that there is no upper limit for bandwidth.
imageType	Yes	Int	Image type. Only three values are available: A value of 1 indicates that it is a private image; A value of 2 indicates that it is a public image.
rootSize	No	Int	Size of system disk (in GB). Default size for Linux is 50 GB, and the increment is 1 GB. Adjustment is not supported for Windows. The default size is 50 GB.
keyId	No	String	ID of key. It can be queried by calling Query Keys (DescribeKeyPairs) API.
password	No	String	Instance password. It will be generated randomly if not set. Password rules for Linux host: which should be a combination of 8-16 characters comprised of at least two of the following types: letters, numbers, special characters (!, @, #, $, %, ^, \, , ()). *Password rules for Windows host: which should be a combination of 12-16 characters comprised of at least three of the following types: uppercase letters, lowercase letters, numbers, special characters (!, @, #, \,)*. **Note: Key and password cannot both be specified at the same time.**
needMonitorAgent	No	Int	Activate cloud monitor service or not. Only two values are available: 1: activated; 0: deactivated. Default is 1.
needSecurityAgent	No	Int	Whether to activate cloud security service. Only two values are available: 1: activated; 0: deactivated. Default is 1.
wanIp	No	Int	Whether to activate the public IP. Only two values are available: 1: activated; 0: deactivated. Default is 1.
sgId	No	String	Safety group ID. It can be queried by calling API Query Security Group List .
projectId	No	String	Project ID. If not specified, 0 means default project. To specify other projects, you can call API Query Project List (DescribeProject) to query.
dataSnapshotId	No	String	Data disk snapshot ID. If you want to use the data disk snapshot function, the data disk type (storageType) must be cloud disk, and the capacity of data disk snapshot must be less than that of the data disk (storageSize).

Parameter Name	Required	Type	Description
cvmType	No	String	Select CVM type. Only seven values are available: 11 means Standard CVM; 12 means Standard CVM Series 2; 21 means High IO CVM; 22 means High IO CVM Series 2; 31 means Memory CVM. 32 means Memory CVM Series 2 42 means Calculation CVM. If not specified, the default of this field is 11 (Standard CVM).
userdata	No	String	Base64-encoded User Data text, the length limit is 16KB.

Currently, the scaling configurations support three CVMs, including Standard CVM, High IO CVM and Memory CVM (subject to the actual available types in each region). For more information about the CPUs and memories sizes supported by scaling configurations, refer to CVM Instance Configuration.

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.
message	String	Module error message description depending on API.
data	Array	Output results. It contains the scaling configuration list information that was created successfully.

Parameter data is composed of only one element: scalingConfigurationIdSet.

Parameter Name	Type	Description
scalingConfigurationIdSet	Array	Each scaling configuration ID created.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional common error codes, refer to AS Error Code.

Error Code	Description
QuotaExceeded.ScallingConfiguration	Scaling configurations to be added exceed the limit
NameDuplicate.ScallingConfiguration	Scaling configuration name already exists
InvalidParameter.SecurityGroupId	Security group ID is incorrect
IInvalidParameter.CbsNotMatchCpu	1C1G can only configure cloud disks
InvalidParameter.storageType	Storage type error

Error Code	Description
QuotaExceeded.storageSize	Data disk size exceeds the range
QuotaExceeded.rootSize	System disk size exceeds the range
OprationFail.CpuOrMemNotExsit	The model for this cpu and mem are sold out or not available

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingConfigurationName=configuration_test
&imageType=2
&imageId=img-50mr2ow7
&cpu=1
&mem=2
&storageType=6
&storageSize=100
&bandwidthType=PayByTraffic
&bandwidth=1
&projectId=0
&cvmType=12
```

Example of returned result is as below:

```
{
"code":"0",
"message":"",
"codeDesc":"Success",
"data":{
"scalingConfigurationIdSet":[
"asc-4jwggk1l"
]
}
}
```

Querying Startup Configuration

Last updated：2018-08-21 16:13:05

1. API Description

This API (DescribeScalingConfiguration) is used to query scaling configuration information. Users can specify scaling group ID to query all the scaling configurations under this group.
Domain for API request: scaling.api.qcloud.com
Note: When calling the API, Region parameter is not mandatory!

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is DescribeScalingConfiguration.

Parameter Name	Required	Type	Description
scalingConfigurationIds.n	No	String	An array of scaling configurations IDs to be queried. The array subscript is started with 0 and up to 20.
scalingConfigurationName	No	String	Scaling configuration names to be queried. Passing of scaling configuration name arrays is currently not supported.
offset	No	Int	Offset; default is 0.
limit	No	Int	The maximum of scaling configurations that can be queried at a time. Default is 20.
projectId	No	String	Project ID. If it is left empty, the scaling configurations of all projects will be queried. 0 means default project. To specify other projects, you can call API Query Project List (DescribeProject) to query.

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.
message	String	Module error message description depending on API.
data	Array	Output results. Scaling group list information returned for the query.

Parameter data is composed of the following parameters:

Parameter Name	Type	Description
totalCount	Int	Number of scaling configurations returned for the query.
scalingConfigurationSet	Array	Set of scaling configuration information returned for the query.

scalingConfigurationSet contains an amount of scaling configuration information, and the information about each scaling group is composed of the following parameters:

Parameter Name	Type	Description
scalingConfigurationId	String	Scaling configuration ID returned for the query.
scalingConfigurationName	String	Scaling configuration name returned for the query.
scalingGroupIdSet	Array	All scaling groups information that use this scaling configuration.
cpu	Int	Number of Server CPU cores
mem	Int	Server memory capacity (in GB).
imageType	Int	Image type. A value of 1 indicates that it is a private image; A value of 2 indicates that it is a public image.
imageId	String	Image ID.
storageType	Int	Data disk type. A value of 1 indicates that it is a local disk; A value of 2 indicates that it is a cloud disk.
storageSize	Int	Size of data disk (in GB).
rootSize	Int	Size of system disk (in GB).
bandwidthType	String	Bandwidth type. PayByHour: Charge by bandwidth usage time; PayByTraffic: Charge by traffic.
bandwidth	Int	Public network bandwidth (in Mbps).
wanIp	Int	Public IP. 1 means enable; 0 means not enable.
keyId	String	ID of key.
password	String	Password.
sgSet	Array	Security group information.
needMonitorAgent	Int	Activate cloud monitor service or not. 1 means activate; 0 means not activate.
needSecurityAgent	Int	Activate cloud security service or not. 1 means activate; 0 means not activate.
createTime	String	Creation time of the scaling configuration.
projectId	Int	Project ID.

scalingGroupIdSet contains all scaling groups information that use this scaling configuration. It consists of a series of scaling group information, and each group information is composed of the following parameters:

Parameter Name	Type	Description
scalingGroupIdSet.n.scalingGroupName	String	Scaling group ID.
scalingGroupIdSet.n.scalingGroupName	String	Scaling group name.

4. Error Codes

For common errors on this API, refer to AS Error Code.

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
```

Example of returned result is as follows. The totalCount is 1, indicating that the user only has one scaling configuration. The scalingGroupIdSet parameter in this scaling configuration only contains one set of information, indicating that only one scaling group uses this scaling configuration.


```
{
"code":"0",
"message":"",
"codeDesc":"Success",
"data":{
"totalCount":1,
"scalingConfigurationSet": [
{
"scalingConfigurationId": "xxx",
"scalingConfigurationName": "xxxx",
"scalingGroupIdSet": [
{
"scalingGroupId": "xxxxxx",
"scalingGroupName": "xxx"
}
],
"sgSet": [],
"needMonitorAgent": 1,
"bandwidthType": 1,
"projectId":0,
"cpu": 1,
"needSecurityAgent": 1,
"rootSize": 20,
"wanIp": 1,
"imageType": 1,
"keyId": "skey-xxx",
"bandwidth": 1,
"storageType": 1,
"createTime": "2016-03-16 16:52:06",
"imageId": "img-xxx",
"mem": 1,
"storageSize": 10,
```



```
"password": ""
},
]
}
}
```

Deleting Startup Configuration

Last updated：2018-08-21 16:13:34

1. API Description

This API (DeleteScalingGroup) is used to delete scaling configurations.
Domain for API request: scaling.api.qcloud.com

1) If a scaling configuration in the scaling group is in active status, then it cannot be deleted.

2) If a CVM instance created by the scaling configuration still exists in the scaling group, then it cannot be deleted.

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is DeleteScalingGroup.

Parameter Name	Required	Type	Description
scalingConfigurationId	Yes	String	Scaling configuration ID to be deleted. It can be queried by calling Query Scaling Configuration (DescribeScalingConfiguration) API.

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.
message	String	Module error message description depending on API.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional common error codes, refer to AS Error Code.

Error Code	Description
Conflict.ScallingConfigurationUse	Scaling configuration is in use

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingConfigurationId=xxx
```

Example of returned result is as follows. The code is 0, indicating that the scaling configuration has been deleted successfully.

```
{
"code":"0",
"message":"",
"codeDesc":"Success",
"data":[]
```

Scaling Group APIs
Creating Scaling Groups

Last updated：2018-08-21 16:13:52

1. API Description

This API (CreateScalingGroup) is used to create new scaling groups.
Domain for API request: scaling.api.qcloud.com

1) Scaling group and cloud load balancer instances must be in the same region and the same project.

2) A maximum of 20 scaling groups can be created for each project.

3) A scaling group can only correspond to one scaling configuration.

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is CreateScalingGroup.

Parameter Name	Required	Type	Description
scalingConfigurationId	Yes	String	The scaling configuration ID used by the scaling group to be created, which specifies the template used when the CVM instance is automatically created by auto scaling. It can be queried by calling API Query Scaling Configuration (DescribeScalingConfiguration).
scalingGroupName	Yes	String	Scaling group name defined by the user.
minSize	Yes	Int	The minimum group size, that is, the minimum number of CVM instances in the scaling group, with the range of 0-30, no greater than maxSize. When the number of CVM instances in the scaling group is less than minSize, AS will automatically add CVM instance to make the current instance number in the scaling group equal to minSize.
maxSize	Yes	Int	The maximum group size, that is, the maximum number of CVM instances in the scaling group, with the range of 0-30, no less than minSize. When the number of CVM instances in the scaling group is larger than maxSize, AS will automatically remove CVM instance to make the current instance number in the scaling group equal to maxSize.
removePolicy	Yes	String	Remove policy. Only two values are available: RemoveOldestInstance means removing the oldest instance in the scaling group, that is, the oldest CVM instance in the scaling group will be first removed if necessary; RemoveNewestInstance means removing the newest instance in the scaling group, that is, the newest CVM instance in the scaling group will be first removed if necessary.
vpcId	Yes	String	VPC ID. 0 means basic network. To specify a VPC network, please fill in the unVpcId (unified ID of VPC) field returned in the API Query VPC List (DescribeVpcEx).

Parameter Name	Required	Type	Description
zoneIds.n	No	String	Region ID of the scaling group. If vpcId is 0, this parameter is required. It can be queried by calling API Query Availability Zone (DescribeAvailabilityZones).
loadBalancerIds.n	No	String	An array of IDs of cloud load balancers bound to the scaling group. You can call API Query Cloud Load Balancer Instances (DescribeLoadBalancersByInstances) to query.
subnetIds.n	No	String	Subnet ID of scaling group. If vpcId is not 0, this parameter is required. It can be queried by calling API Query Subnet List (DescribeSubnetEx).
projectId	No	String	Project ID. If not specified, 0 means default project. To specify other projects, you can call API Query Project List (DescribeProject) to query.
desiredCapacity	No	Int	Initial number of instances, that is, the number of CVMs when the scaling group is created

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.
message	String	Module error message description depending on API.
data	Array	Output result, displaying the information of newly created scaling group.

Parameter data is composed of the following parameters:

Parameter Name	Type	Description
scalingGroupIdSet	Array	ID of the newly created scaling group.

scalingGroupIdSet is a set that contains IDs of all the newly created scaling groups.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional common error codes, refer to AS Error Code.

Error Code	Description
Conflict.MaxsizeLessMinsize	maxsize must be greater than minsize

Error Code	Description
InvalidParameter.ZoneIdError	Incorrect zoneId
InvalidParameter.VpcIdOrSubnetIdError	Incorrect vpcId or subnetId
Conflict.VpcIdVszoneId	vpc and zone cannot both specified
InvalidParameter.LoadBalancerIdError	Incorrect LbId
QuotaExceeded.ScalingGroup	Number of scaling groups allowed to be added has been exceeded
QuotaExceeded.ZoneId	Number of zoneId allowed to be added has been exceeded
QuotaExceeded.SubnetId	Number of subnetId allowed to be added has been exceeded
QuotaExceeded.LoadBalancerId	Number of lbId allowed to be added has been exceeded
NameDuplicate.ScalingGroup	The scaling group name already exists
Conflict.InsufficientBalance	Unable to create the scaling group due to insufficient balance

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupName=xxxxx
&scalingConfigurationId=xxxxxx
&minSize=1
&maxSize=10
&vpcId=0
&removePolicy=RemoveOldestInstance
&zoneIds.0=100001
&loadBalancerIds.0=qlbxxxxx
```

Example of returned result is as follows. Only one scaling group is created, so the scalingGroupIdSet contains only one element.

```
{
"code":"0",
"message":"",
"codeDesc":"Success",
"data":{
"scalingGroupIdSet":[
"asg-hz5v140t"
]
}
}
```

Querying Scaling Group List

Last updated：2018-08-21 16:14:13

1. API Description

This API (DescribeScalingGroup) is used to query the scaling group details. You can filter the results by scaling group ID, scaling group name, scaling configuration ID, etc.
Domain for API request: scaling.api.qcloud.com

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is DescribeScalingGroup.

Parameter Name	Required	Type	Description
scalingGroupIds.n	No	String	An array of scaling group IDs to be queried. The array subscript starts from 0. If left empty, it means all scaling groups will be displayed.
scalingGroupName	No	String	The scaling group name to be queried. Passing the array of scaling group names is currently not supported.
scalingConfigurationId	No	String	The scaling configuration ID used by the scaling group to be queried, which specifies the template used when the CVM instance is automatically created by auto scaling. It can be queried by calling API Query Scaling Configuration (DescribeScalingConfiguration).
offset	No	Int	Offset; default is 0.
limit	No	Int	The maximum number of scaling groups that can be queried at a time. Default is 20.
vpcId	No	String	VPC ID. If it is left empty, all the network scaling groups will be queried; 0 means basic network. To specify a VPC network, please fill in the unVpcId (unified ID of VPC) field returned in the API Query VPC List (DescribeVpcEx).
projectId	No	String	Project ID. If it is left empty, the scaling groups of all projects will be queried. 0 means default project. To specify other projects, you can call API Query Project List (DescribeProject) to query.

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.

Parameter Name	Type	Description
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.
message	String	Module error message description depending on API.
data	Array	Output results. Scaling group list information returned for the query.

Parameter data is composed of the following parameters:

Parameter Name	Type	Description
totalCount	Int	Number of scaling groups returned for the query.
scalingGroupSet	Array	Set of scaling group information returned for the query.

scalingGroupSet contains information about a number of scaling groups, and the information about each scaling group is composed of the following parameters:

Parameter Name	Type	Description
scalingGroupId	String	Scaling group ID returned for the query.
scalingGroupName	String	Scaling group name returned for the query.
scalingConfigurationId	String	Scaling configuration ID corresponding to the scaling group.
scalingConfigurationName	String	Scaling configuration name corresponding to the scaling group.
minSize	Int	The minimum size of the scaling group, that is, the minimum number of CVM instances in the scaling group.
maxSize	Int	The maximum size of the scaling group, that is, the maximum number of CVM instances in the scaling group.
createTime	String	Creation time of the scaling group.
instanceNum	Int	The number of existing CVM instances of the scaling group.
removePolicy	String	Remove policy for the scaling group 1. RemoveOldestInstance means removing the oldest instance in the scaling group. The oldest CVM instance in the scaling group will be first removed to scale down the group. 2. RemoveNewestInstance means removing the newest instance in the scaling group. The newest CVM instance in the scaling group will be first removed to scale down the group.
loadBalancerIdSet	Array	Information of the cloud load balancers bound to the scaling group.
vpcId	Int	ID of the VPC to which the scaling group belongs.
subnetIdSet	Array	Subnet information of scaling group.
zoneIdSet	Array	Region information of scaling group.

Parameter Name	Type	Description
projectId	Int	Project ID of scaling group.
bInScalingActivity	Int	Whether the scaling group has scaling activity being performed (0: no scaling activity being performed; 1: scaling activity being performed) Scaling up, scaling down, binding and unbinding the CVM will trigger the scaling activity, and the scaling group can only have one scaling activity in progress at the same time.

loadBalancerIdSet indicates Cloud Load Balancer information of the scaling group, and is composed of the following parameters: Empty parameter means Cloud Load Balancer is not used.

Parameter Name	Type	Description
status	Int	Cloud Load Balancer status.
loadBalancerId	String	ID of Cloud Load Balancer.
owner	String	Account of Cloud Load Balancer owner.
zoneId	Int	Region of Cloud Load Balancer.

subnetIdSet indicates subnet information of the scaling group, and is composed of the following parameters. Empty parameter means subnet is not used.

Parameter Name	Type	Description
status	Int	Subnet status.
subnetId	String	Subnet ID.
owner	String	Account of subnet owner.
zoneId	Int	Region of subnet.

zoneIdSet indicates zone information of the scaling group, and is composed of the following parameters:

Parameter Name	Type	Description
status	Int	Status information.
owner	String	Owner account.
zoneId	Int	Region.

4. Error Codes

For common errors on this API, refer to AS Error Code.

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupIds.0=asg-d4hmoms6
```

The following results will be returned:


```
{
"code": 0,
"message": "",
"codeDesc":"Success",
"data": {
"totalCount": 1,
"scalingGroupSet": [
{
"scalingGroupId": "asg-d4hmoms6",
"scalingGroupName": "test",
"scalingConfigurationId": "asc-hq6jo6h4",
"scalingConfigurationName": "test",
"minSize": 0,
"maxSize": 1,
"createTime": "2016-06-04 23:58:03",
"instanceNum": 0,
"removePolicy": "RemoveOldestInstance",
"loadBalancerIdSet": [],
"vpcId": 0,
"subnetIdSet": [],
"zoneIdSet": [
{
"status": 1,
"owner": "1251707795",
"zoneId": 100002
}
],
"projectId": 0,
"bInScalingActivity": 1
}
]
}
}
```

Modifying Scaling Groups

Last updated：2018-08-21 16:15:24

1. API Description

This API (ModifyScalingGroup) is used to modify the attributes of a specific scaling group.
Domain for API request: scaling.api.qcloud.com

1) You can modify the corresponding scaling group attributes based on scalingGroupId. Only the following attributes can be modified:
maxSize: The maximum group size, that is, the maximum number of the CVM instances in the scaling group
minSize: The minimum group size, that is, the minimum number of the CVM instances in the scaling group
removePolicy: Remove policy. It specifies whether to first remove the oldest or newest instance in the scaling group if necessary
scalingGroupName: Scaling group name
desiredCapacity: The desired instance number
scalingConfigurationId: Scaling configuration
Other attributes cannot be modified.

2) You can only call this API when the scaling group is in active or inactive status.

3) When the number of CVM instances in the scaling group does not satisfy the modified maxSize, minSize, desiredCapacity, CVM instances will be automatically added or removed by the auto scaling service to make the number of CVM instances in the scaling group between maxSize and minSize and equal to desiredCapacity.

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is ModifyScalingGroup.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	Scaling group ID to be modified. It can be queried by calling API Query Scaling Group List (DescribeScalingGroup).
minSize	Yes	Int	The minimum group size of the scaling group after modification, that is, the minimum number of CVM instances in the scaling group, with the range of 0-30, no greater than maxSize. When the number of CVM instances in the scaling group is less than minSize, AS will automatically add CVM instance to make the current instance number in the scaling group equal to minSize.
maxSize	Yes	Int	The maximum group size of the scaling group after modification, that is, the maximum number of CVM instances in the scaling group, with the range of 0-30, no less than minSize. When the number of CVM instances in the scaling group is larger than maxSize, AS will automatically remove CVM instance to make the current instance number in the scaling group equal to maxSize.

Parameter Name	Required	Type	Description
removePolicy	Yes	String	Remove policy for the scaling group. Only two values are available: RemoveOldestInstance means removing the oldest instance in the scaling group, that is, the oldest CVM instance in the scaling group will be first removed if necessary; RemoveNewestInstance means removing the newest instance in the scaling group, that is, the newest CVM instance in the scaling group will be first removed if necessary.
scalingGroupName	No	String	Scaling group name defined by the user. If left empty, the name will be not modified.
scalingConfigurationId	No	String	The scaling configuration currently bound to the scaling group. After the modification, the margin sub-machine adopts the configuration before replacement, and the incremental sub-machine adopts the modified configuration. If left empty, the original scaling configuration will not be modified.
desiredCapacity	No	Int	The desired instance number. It refers to the number of currently reasonable instances in the scaling group with the value between the minimum and the maximum number of instances. Its value can be adjusted manually. When the timed task and alarm scaling task are triggered, it will also be adjusted. The scaling group will automatically adjust the actual number of instances to make it equal to the desired instance number.

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.
message	String	Module error message description depending on API.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional common error codes, refer to AS Error Code.

Error Code	Description
InvalidParameter.ScalingGroupIdError	Incorrect scalingGroupId
Conflict.MaxsizeLessMinsize	maxsize must be greater than minsize
InvalidParameter.DesiredCapacity	Invalid desired instance number

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&minSize=3
&maxSize=20
&scalingGroupId=xxx
&removePolicy=RemoveOldestInstance
```

Example of returned result is as below:

```
{
"code":"0",
"message":"",
"codeDesc":"Success"
}
```

CVM Removal Protection

Last updated：2018-08-21 16:15:44

1. API Description

This API (SetCvmProtectedDetach) is used to set the sub-machine removal protection.
Domain for API request: scaling.api.qcloud.com

When the submachine is protected from removal, it will not be scaled down when replacement of unhealthy sub-machines, alarm policy and expected change trigger the scale-down.

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is ModifyScalingGroup.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	ID of the scaling group of the submachine to be protected from removal. It can be queried by calling API Query Scaling Group List (DescribeScalingGroup).
instanceIds.n	Yes	String	An array containing the IDs of submachine to be protected from removal. Array subscript starts from 0.
protectedFromDetach	Yes	Int	Flag bit of removal protection, 1: to set sub-machine removal protection; 0: to cancel sub-machine removal protection.

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.
message	String	Module error message description depending on API.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional common error codes, refer to AS Error Code.

Error Code	Description

Error Code	Description
InvalidParameter.ScalingGroupIdError	Incorrect scalingGroupId
InvalidParameter.ProtectedFromDetach	Error in setting flag bit of removal protection. 0: to cancel removal protection; 1: to set removal protection
InvalidParameter.InstanceIdError	Invalid submachine ID

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupId=asg-xxx
&instanceIds.0=ins-xxx
&protectedFromDetach=1
```

Example of returned result is as below:

```
{
"code":"0",
"message":"",
"codeDesc":"Success"
}
```

Querying Bound CVM Of A Scaling Group

Last updated：2018-08-21 16:16:10

1. API Description

This API (DescribeScalingInstance) is used to query CVMs bound to the scaling groups.
Domain for API request: scaling.api.qcloud.com

1) You can filter the results based on the scaling group ID, CVM ID, instance health status, instance creation type, and so on.

2) There are two types of CVM instances added to the scaling group: automatically created CVM instance and manually added CVM instance.
"Automatically created CVM instance" refers to a CVM instance that is automatically created by an auto scaling service according to the user's scaling configuration and scaling rule.
"Manually added CVM instance" refers to a CVM instance that is not created by an auto scaling service but is manually added by the user to the scaling group.

3) The life cycle of the CVM instance in the scaling group is described by the following statuses:
Creating (Creating) - Indicates that a CVM instance is being created.
Running (InService) - Indicates that an instance is running.
Removing (Removing) - Indicates that an instance is being removed from the scaling group.
Binding (Attaching) - Indicates that an instance is being bound to the scaling group.
Unbinding (Detaching) - Indicates that an instance is being unbound from the scaling group.
Backuping (Backuping) - Indicates that an instance is being backed up.
UnBackuping (UnBackuping) - Indicates that the backup instance is being deleted.
Binding LB (AttachLb) - Indicates that a cloud load balance is being bound.
Unbinding LB (DetachLb) - Indicates that a cloud load balance is being unbound.
Prefetching (Preheating) - Indicates that the instance is being prefetched.

4) The health status of the CVM instance in the scaling group is:
Healthy
Unhealthy
The AS will automatically remove the unhealthy CVM instances from the scaling group. For "automatically created CVM instance", CVM will stop and release the CVM instance. For "manually added CVM instance", CVM will not stop and release the CVM instance.

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is DescribeScalingInstance.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	Scaling group ID to be queried. It can be queried by calling Query Scaling Group List (DescribeScalingGroup) API.

Parameter Name	Required	Type	Description
instanceIds.n	No	String	CVM instance ID to be queried. All CVM instances bound to the scaling group are displayed by default. To specify a CVM instance, please fill in the unInstanceId (unified ID of CVM) field returned in the API Query Instance List (DescribeInstances), and up to 20 CVM instances can be specified.
creationType	No	String	The type of CVM instance to be queried that bound to the scaling group. Only two values are available: Auto means that the instance is automatically created by the scaling group; Manual means that the instance is manually created by the user.
healthStatus	No	String	The health status of CVM instance to be queried that bound to the scaling group. Only two values are available: Healthy means that the instance is healthy; UnHealthy means that the instance is unhealthy.
offset	No	Int	Offset; default is 0.
limit	No	Int	The maximum number of CVM instances allowed to be displayed at a time. Default is 20.

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.
message	String	Module error message description depending on API.
data	Array	Output results. CVM instance list returned for the query.

Parameter data is composed of the following parameters:

Parameter Name	Type	Description
totalCount	Int	The number of CVM instances returned for the query.
scalingInstancesSet	Array	Set of CVM instance information.

scalingInstancesSett contains information about a number of several CVM instances, and the information about each CVM instance is composed of the following parameters:

Parameter Name	Type	Description
instanceId	String	ID of the CVM instance.
healthStatus	String	Health status of the instance. Healthy means that the instance is healthy; UnHealthy means that the instance is unhealthy.

Parameter Name	Type	Description
creationType	String	Instance type. Auto means that the instance is automatically created by the scaling group; Manual means that the instance is manually created by the user.
lifeCycleState	String	The lifecycle statuses of an instance in the scaling group includes the following cases: Creating (Creating) Running (InService) Removing (Removing) Binding (Attaching) Unbinding (Detaching) Backuping (Backuping) UnBackuping (UnBackuping) Binding LB (AttachLb) Unbinding LB (DetachLb) Prefetching (Preheating)
protectedFromScaleIn	Int	Flag bit of removal protection. 1: In removal protection; 0: Not in removal protection.
addTime	String	The time at which this instance is added to the scaling group.

4. Error Codes

For common errors on this API, refer to AS Error Code.

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupId=asg-xxxxx
```

Example of returned result is as follows. The scalingInstancesSet contains only one element, indicating that there is only one CVM instance bound to the scaling group.

```
{
"code":"0",
"message":"",
"codeDesc":"Success",
"data":{
"totalCount":1,
"scalingInstancesSet":[
{
"instanceId":"ins-xxxx",
"healthStatus":"Healthy",
"creationType":"Manual",
"lifeCycleState":"InService",
"addTime":"2016-03-17 11:48:31"
}
]
}
}
```

Binding Scaling Groups With CVM

Last updated：2018-08-21 16:16:37

1. API Description

This API (AttachInstance) is used to add a CVM instance to a specified scaling group.
Domain for API request: scaling.api.qcloud.com

1) The added CVM instance needs to meet the following conditions:
The added CVM instance must be in the same region as the scaling group.
The specifications of the added CVM instances must be exactly the same as those of the instance bound scaling configuration.
The status of the added CVM instance must be "Running".
The added CVM instance can not be one already added to other scaling groups.

2) This function can be performed when the scaling group is in active status.

3) This function can only be performed when the scaling group is not performing a scaling activity.

4) This function can be performed directly without the cooldown period when the scaling group has no scaling activity being performed.

5) If the number of instances specified by this function plus the number of instances of the current scaling group is greater than the maximum group size specified by the scaling group, the call fails.

6) The manually added CVM instance is not associated with the scaling configuration in effect in scaling group.

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is AttachInstance.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	Scaling group ID of CVM instance to be bound. It can be queried by calling Query Scaling Group List (DescribeScalingGroup) API.
instanceIds.n	Yes	String	CVM instance ID to be bound. Please fill in the unInstanceId (unified ID of CVM) field returned in the API Query Instance List (DescribeInstances), and a scaling group can bind up to 20 CVM instances.

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.

Parameter Name	Type	Description
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.
message	String	Module error message description depending on API.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional common error codes, refer to AS Error Code.

Error Code	Description
IncorrectInstanceStatus.InOtherScalingGroup	The CVM has been bound in other scaling groups
InvalidParameter.ScalingGroupIdError	Incorrect scalingGroupId
InvalidParameter.InstanceIdError	Incorrect instanceId
InvalidInstanceId.ScallingConfigurationMismatch	The bound CVM does not match the scaling group configuration
InvalidParameter.InvalidProjectId	The project ID to which the resource belongs is not the default project

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupId=xxx
&instanceIds.0=ins-xxxx
&instanceIds.1=ins-xxxx
```

Example of returned result is as follows. The code is 0, indicating that the bind is successfully.

```
{
"code":"0",
"message":"",
"codeDesc":"Success"
}
```

Unbinding Scaling Groups from CVM

Last updated：2018-08-21 16:17:14

1. API Description

This API (DetachInstance) is used to detach a CVM instance from a specified scaling group.
Domain for API request: scaling.api.qcloud.com

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is DetachInstance.

1) If the removed CVM instance is manually created by the user, the instance will not be stopped and released.

2) This function can be performed only when the scaling group is in active status.

3) This API can be called only when the scaling group is not performing a scaling activity.

4) This function can be performed directly without the cooldown period when the scaling group has no scaling activity being performed.

5) If the number of instances of the current scaling group minus the number of instances specified by this API is less than the minimum group size specified by the scaling group, the call fails.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	ID of the scaling group to be removed from the CVM instance. It can be queried by calling API Query Scaling Group List (DescribeScalingGroup).
instanceIds.n	Yes	String	ID of the CVM instance to be removed from the scaling group. Please fill in the instanceId (unified ID of CVM) field returned in API Query CVM Bound to Scaling Group (DescribeScalingInstance).
keepInstance	No	Int	Whether to keep the detached instance. Value range: • 0: stop and release the detached instances. • 1: keep the detached instances. default value: 0

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.

Parameter Name	Type	Description
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.
message	String	Module error message description depending on API.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional common error codes, refer to AS Error Code.

Error Code	Description
InvalidParameter.ScalingGroupIdError	Incorrect scalingGroupId
InvalidParameter.InstanceIdError	Incorrect instanceId

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupId=xxx
&instanceIds.0=ins-xxxx
&instanceIds.1=ins-xxxx
```

Example of returned result is as follows. If the code is 0, it is unbound successfully.

```
{
"code":"0",
"message":"",
"codeDesc":"Success"
}
```

Querying Scaling Activities

Last updated：2018-08-21 16:17:52

1. API Description

This API (DescribeScalingActivity) is used to query scaling activity logs of scaling groups.
Domain name for API request: scaling.api.qcloud.com

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters are also needed when the API is called. For more information, please see Common Request Parameters page. The Action field for this API is DescribeScalingActivity.

Parameter	Required	Type	Description
scalingGroupId	Yes	String	ID of the scaling group you want to query
scalingActivityIds.n	No	Array	IDs of the scaling activity ID you want to query
offset	No	Int	Offset; default is 0
limit	No	Int	Number of returned results. Default is 20
startTime	No	datetime	Specify a start time
endTime	No	datetime	Specify an end time

3. Output Parameters

Parameter	Type	Description
code	Int	Common error code. 0: Successful; other values: Failed. For more information, please see Common Error Codes on the error codes page
codeDesc	String	Error code at business side. For a successful operation, "Success" is returned. In case of an error, a message describing the reason for the error is returned.
message	String	Module error message description depending on API
data	Array	Query detailed information on returned scaling activities
data.scalingActivitySet	Array	Specific scaling activity details
data.totalCount	int	Number of the recorded scaling activities upon query

Each element in the `scalingActivitySet` array is a scaling activity log in json format.

Parameter	Type	Description

Parameter	Type	Description
autoScalingGroupId	String	ID of the scaling group to which the current scaling activity belongs
status	Int	Execution result of a scaling activity. Specific mapping relationship is shown in the following table
type	Int	Type of the current scaling activity. Specific mapping relationship is shown in the following table
errorCode	Int	Error code of the execution result for the scaling activity. Specific mapping relationship is shown in the following table
succInsList	Int	ID of the server on which a scaling activity is successfully executed
failInsList	Int	ID of the server on which a scaling activity fails to be executed
cause	String	The reason why a scaling activity is triggered
desciption	String	Description of a scaling activity
msg	String	Description of the execution result for the scaling activity
scalingActivityId	String	ID of the current scaling activity
startTime	String	Start time of the current scaling activity
endTime	String	End time of the current scaling activity

The mapping relationship is shown as follows:

1) `status` :

Code	Description
0	Initializing
1	Executing
2	Successful
3	Partially successful
4	Failed
5	Canceled

2) `type` :

Code	Description
0	Scale up
1	Scale down
2	Add a server
3	Remove a server

Code	Description
10	Replace an unhealthy server

3) errorCode :

Code	Description	Suggested Operation
0	Succeed	Succeed
10000	Image is deleted	Change launch configuration
10001	LB is deleted	Modify LB
10002	Data snapshot is deleted	Change launch configuration
10003	Security group is deleted	Change launch configuration
10004	Subnet is deleted	Modify the subnet
20000	Sold out	Stop scale-up activities
20001	Model does not exist	Stop scale-down activities
20002	Insufficient backend resources	Stop scale-up activities
30000	Insufficient quota	Decrease the number of servers to scale up, or send a ticket to increase quota
30001	Insufficient account balance	Top up
40000	Scaling group is performing a scaling activity	Try again later
40001	Scaling group is in cooldown period	Try again later
50000	Key is deleted	Change launch configuration

4. Error Codes

For common errors on this API, please see AS Error Codes.

5. Example

Input

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupId=asg-xxxxx
&limit=1
```

Output

```
{
"code": 0,
"message": "",
"codeDesc": "Success",
"data": {
"totalCount": 8,
"scalingActivitySet": [
{
"autoScalingGroupId": "asg-pixbyldg",
"status": 2,
"cause": "Users are removed from the CVM [ins-5u97n5re]",
"desciption": "Users are removed from the CVM [ins-5u97n5re]",
"startTime": "2017-04-15 20:54:57",
"msg": "success",
"scalingActivityId": "asa-b51zb5i4",
"endTime": "2017-04-15 20:54:59",
"type": 3,
"succInsList": [
"ins-5u97n5re"
],
"failInsList": [],
"errorCode": 0
}
]
}
}
```

Deleting Scaling Groups

Last updated：2018-08-21 16:18:20

1. API Description

This API (DeleteScalingGroup) is used to delete a specific scaling group. You can delete the corresponding scaling group based on scalingGroupId.
Domain for API request: scaling.api.qcloud.com

1) You can delete a scaling group only when the following two conditions are satisfied.
i. The scaling group is not performing a scaling activity.
ii. The number of CVM instances currently in the scaling group is 0.

2) The information on the associated scaling configuration, scaling rule, scaling activity and scaling request will be deleted when a scaling group is deleted.

3) When a scaling group is deleted, the following tasks or instances will not be deleted: scheduled task, cloud monitor alarm task and cloud load balancer instance.

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is DeleteScalingGroup.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	Scaling group ID. It can be queried by calling API Query Scaling Group List (DescribeScalingGroup).

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.
message	String	Module error message description depending on API.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional common error codes, refer to AS Error Code.

Error Code	Description
InvalidParameter.ScalingGroupIdError	Incorrect scalingGroupId

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupId=xxxx
```

Example of returned result is as below:

```
{
"code":"0",
"message":"",
"codeDesc":"Success"
}
```

APIs for Alarm Triggering Policies
Creating Alarm Triggering Policies

Last updated：2018-08-21 16:18:43

1. API Description

This API (CreateScalingPolicy) is used to create an alarm trigger policy.
Domain for API request: scaling.api.qcloud.com

1) When adjustmentType is TotalCapacity, it means adjusting the number of CVM instances in the current scaling group to the number specified by adjustmentValue. The value of adjustmentValue must be greater than or equal to 0.

2) When adjustmentType is `QuantityChangeInCapacity` or `PercentChangeInCapacity`, if the value of adjustmentValue is positive, it means increasing instances, and if negative, it means reducing instances.

3) When adjustmentType is PercentChangeInCapacity, adjustmentValue indicates the percentage of current instances.

4) A maximum of 100 alarm trigger policies can be created in a scaling group. For more information, refer to Service Limits.

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is CreateScalingPolicy.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	ID of the scaling group for which the alarm trigger policy needs to be created. It can be queried by calling API Query Scaling Group List (DescribeScalingGroup).
scalingPolicyName	Yes	String	Name of the alarm policy defined by users.
metric	Yes	String	Parameter metric stipulates the specific scaling policy in json format. {"DimensionName": "cpu_usage", "comparisonOperator": "Greater", "threshold": 50, "repeatTimes": 2} If cpu usage is greater than 50%, and will be in line with this rule in the next two service periods (5 minutes for each service period), the scaling activity will be triggered to increase or decrease the corresponding CVMs. Click here to view detailed statistical rules
adjustmentType	Yes	String	Adjustment method of the scaling rule. Only 3 values are available: TotalCapacity: Adjusting the number of instances in the current scaling group to the specified number. QuantityChangeInCapacity: Increasing or decreasing the instances by specified number. PercentChangeInCapacity: Increasing or decreasing instances by specified percentage.

Parameter Name	Required	Type	Description
adjustmentValue	Yes	Int	Adjustment value for the scaling rule. If it is negative, it means decreasing instances. The value ranges of adjustmentValue are as follows: TotalCapacity: 0-30 QuantityChangeInCapacity: -30-30 PercentChangeInCapacity: -100-100.
cooldown	Yes	Int	Cooldown period (in seconds), a period of time when the corresponding scaling group is locked after a scaling activity is completed. During this period, this scaling group cannot execute other scaling activities.
notifyIds.n	No	String	ID of the notification group, that is, the user group ID (groupID). The maximum number is 20, and the array subscript starts from 0. You can call API Obtain User Group List (DescribeUserGroup) to query the parameter.

Parameter metric stipulates the specific scaling policy in json format. Its parameters are as follows:

Parameter Name	Required	Type	Description
comparisonOperator	Yes	String	Comparison operator. Available values include: Greater: Greater than EqualOrGreater: Greater than or equal to Less: Less than. EqualOrLess: Less than or equal to. Equal: Equal. NotEqual: Not equal.
dimensionName	Yes	String	Dimension. Available values include: cpu_usage: CPU usage. mem_usage: Memory usage. lan_outtraffic: Outbound bandwidth of the private network. lan_intraffic: Inbound bandwidth of the private network.
threshold	Yes	Int	Alarm threshold: cpu_usage: value range [0, 100], unit: % mem_usage: value range [0, 100], unit: % lan_outtraffic: value range >0, unit: Bps lan_intraffic: value range >0, unit: Bps
repeatTimes	No	Int	Repeated times: value range: [1,10], defaults is 3

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.

Parameter Name	Type	Description
message	String	Module error message description depending on API.
data	Array	It contains the list information of scaling rules that were created successfully.

Parameter data is composed of only one element: scalingPolicyIdSet.

Parameter Name	Type	Description
ScalingPolicyIdSet	Array	It contains the ID of each scaling rule created.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional common error codes, refer to AS Error Code.

Error Code	Description
NameDuplicate.ScalingPolicy	The scaling rule name already exists
QuotaExceeded.ScalingPolicy	Number of scaling rules allowed to be added has been exceeded
InvalidParameter.Metric	METRIC is configured incorrectly
InvalidParameter.ScalingPolicyAdjustmenttypeError	Incorrect type of scaling action
InvalidParameter.ScalingPolicyNameError	Wrong scaling policy name
InvalidParameter.AdjustmentValue	adjustmentValue of scaling policy is beyond the range

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupId=xxxx
&scalingPolicyName=xxxx
&adjustmentType=QuantityChangeInCapacity
&adjustmentValue=10
&cooldown=300
&metric={"dimensionName":"cpu_usage","comparisonOperator":"EqualOrGreater","threshold":50}
&notifyIds.0=1832
&notifyIds.1=1833
```

Example of returned result is as below:

```
{
"code":"0",
"message":"",
"codeDesc":"Success",
```

```
"data":{
"scalingPolicyIdSet":[
"sp-170oxpxp"
]
}
}
```

Querying Alarm Triggering Policies

Last updated：2018-08-21 16:19:08

1. API Description

This API (DescribeScalingPolicy) is used to query the alarm trigger policy.
Domain for API request: scaling.api.qcloud.com

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is DescribeScalingConfiguration.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	ID of scaling group. In this case, it represents the scaling group in which the alarm trigger policy to be queried locates. This parameter can be obtained by calling API Query Scaling Group List (DescribeScalingGroup).
scalingPolicyIds.n	No	String	An array of alarm trigger policy IDs to be queried. Array subscript starts from 0.
scalingPolicyName	No	String	Name of the alarm trigger policy to be queried.
offset	No	Int	Offset; default is 0.
limit	No	Int	The maximum number of alarm trigger policies allowed to be queried at a time. Default is 20.

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.
message	String	Module error message description depending on API.
data	Array	Information on the list of alarm trigger policies returned for the query.
totalCount	Int	Number of alarm trigger policies returned for the query.

Parameter data is composed of the following parameters:

Parameter Name	Type	Description

Parameter Name	Type	Description
scalingPolicyId	String	ID of alarm trigger policy returned for the query.
scalingPolicyName	String	Name of alarm trigger policy returned for the query.
adjustmentType	String	Adjustment method of scaling rules returned for the query. The possible values are: QuantityChangeInCapacity: Increasing or decreasing the instances by specified number. PercentChangeInCapacity: Increasing or decreasing instances by specified percentage. TotalCapacity: Adjusting the number of instances in the current scaling group to the specified number. UnhealthyInstance: Remove unhealthy instances (default policy cannot be modified or deleted).
adjustmentValue	Int	Adjustment value for the scaling policy.
metric	Array	Scaling rule, the composition of which is shown in the table below.
notifyIdSet	Array	Notification group ID, or the user group ID (groupId), which indicates the user group where the user is located.
createTime	String	Creation time of the alarm policy
cooldown	Int	Cooldown time, a period of time when the corresponding scaling group is locked after a scaling activity is completed. During this period, this scaling group cannot execute other scaling activities.

metric represents the scaling rule and is composed of the following parameters:

Parameter Name	Type	Description
dimensionName	String	Dimension. Available values include: cpu_usage: CPU usage. mem_usage: Memory usage. lan_outtraffic: Outbound bandwidth of the private network. lan_intraffic: Inbound bandwidth of the private network.
comparisonOperator	String	Comparison operator. Available values include: Greater: Greater than EqualOrGreater: Greater than or equal to Less: Less than. EqualOrLess: Less than or equal to. Equal: Equal. NotEqual: Not equal.
threshold	Int	Alarm threshold: cpu_usage: value range [0, 100], unit: % mem_usage: value range [0, 100], unit: % lan_outtraffic: value range >0, unit: Bps lan_intraffic: value range >0, unit: Bps

4. Error Codes

For common errors on this API, refer to AS Error Code.

5. Example

If a user wants to show that the scalingGroupId is the alarm trigger policy for asg-d4hmoms6, the request form may be as follows, where the instruction request parameter only sets the scalingGroupId.

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupId=asg-d4hmoms6
```

The following results will be returned:

```
{
"code":"0",
"message":"",
"codeDesc":"Success",
"data":{
"scalingPolicySet":[
{
"scalingPolicyId": "asp-168y1thp",
"scalingPolicyName": "bono1d24",
"adjustmentType": "QuantityChangeInCapacity",
"adjustmentValue": 10,
"metric": {
"dimensionName": "cpu_usage",
"comparisonOperator": "EqualOrGreater",
"threshold": 50
},
"notifyIdSet": [
"1832",
"1833"
],
"createTime": "2016-03-21 14:07:42",
"cooldown": 300
},
],
"totalCount":1
}
}
```

Modifying Alarm Triggering Policies

Last updated：2018-08-21 16:19:29

1. API Description

This API (ModifyScalingPolicy) is used to modify alarm trigger policies.
Domain for API request: scaling.api.qcloud.com

1) When adjustmentType is TotalCapacity, it means adjusting the number of CVM instances in the current scaling group to the number specified by adjustmentValue. The value of adjustmentValue must be greater than or equal to 0.

2) When adjustmentType is QuantityChangeInCapacity or PercentChangeInCapacity, if the value of adjustmentValue is positive, it means increasing instances, and if negative, it means reducing instances.

3) When adjustmentType is PercentChangeInCapacity, adjustmentValue indicates the percentage of current instances.

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is ModifyScalingPolicy.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	ID of the scaling group for which the alarm trigger policy needs to be modified. It can be queried by calling API Query Scaling Group List (DescribeScalingGroup).
scalingPolicyId	Yes	String	ID of the alarm trigger policy; ID of the alarm trigger policy to be modified in this case. This parameter can be queried by calling API Query Alarm Trigger Policy (DescribeScalingPolicy).
scalingPolicyName	No	String	Name of the alarm policy defined by users.
metric	No	String	Parameter metric stipulates the specific scaling policy in json format. {"dimensionName":"cpu_usage","comparisonOperator":"Greater","threshold":50} If the CPU utilization is greater than 50%, the scaling behavior will be triggered to increase or decrease corresponding CVMs. Click here to view detailed statistical rules
adjustmentType	No	String	Adjustment method of the scaling rule. Only 3 values are available: TotalCapacity: Adjusting the number of instances in the current scaling group to the specified number. QuantityChangeInCapacity: Increasing or decreasing the instances by specified number. PercentChangeInCapacity: Increasing or decreasing instances by specified percentage.
adjustmentValue	No	Int	Adjustment value for the scaling rule. If it is negative, it means decreasing instances. The value ranges of adjustmentValue are as follows: TotalCapacity: 0-30 QuantityChangeInCapacity: -30-30 PercentChangeInCapacity: -100-100.

Parameter Name	Required	Type	Description
cooldown	No	Int	Cooldown period (in seconds), a period of time when the corresponding scaling group is locked after a scaling activity is completed. During this period, this scaling group cannot execute other scaling activities.
notifyIds.n	No	String	ID of the notification group, that is, the user group ID (groupID). The maximum number is 20, and the array subscript starts from 0. You can call API Obtain User Group List (DescribeUserGroup) to query the parameter.

Parameter metric stipulates the specific scaling policy in json format. Its parameters are as follows:

Parameter Name	Required	Type	Description
comparisonOperator	No	String	Comparison operator. Available values include: Greater: Greater than EqualOrGreater: Greater than or equal to Less: Less than. EqualOrLess: Less than or equal to. Equal: Equal. NotEqual: Not equal.
dimensionName	No	String	Dimension. Available values include: cpu_usage: CPU utilization. mem_usage: Memory usage. lan_outtraffic: Outbound bandwidth of the private network. lan_intraffic: Inbound bandwidth of the private network.
threshold	No	Int	Alarm threshold: cpu_usage: value range [0, 100], unit: % mem_usage: value range [0, 100], unit: % lan_outtraffic: value range >0, unit: Bps lan_intraffic: value range >0, unit: Bps

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
message	String	Module error message description depending on API.
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional common error codes, refer to AS Error Code.

Error Code	Description
InvalidParameter.MetricError	METRIC is configured incorrectly
InvalidParameter.ScalingPolicyAdjustmenttypeError	Incorrect type of scaling action
InvalidParameter.ScalingPolicyNameError	Wrong scaling policy name
InvalidParameter.AdjustmentValue	adjustmentValue of scaling policy is beyond the range
Conflict.ModifyDefaultScalingPolicyError	Default policy cannot be edited

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupId=xxxx
&scalingPolicyId=xxxx
&scalingPolicyName=xxxx
&adjustmentType=QuantityChangeInCapacity
&adjustmentValue=10
&cooldown=300
&metric={"dimensionName":"cpu_usage","comparisonOperator":"Greater","threshold":50}
&notifyIds.0=1832
&notifyIds.1=1833
```

Example of returned result is as below:

```
{
"code":"0",
"message":"",
"codeDesc":"Success"
}
```

Deleting Alarm Triggering Policies

Last updated：2018-08-21 16:19:59

1. API Description

This API (DeleteScalingPolicy) is used to delete alarm trigger policies according to the user's input.
Domain for API request: scaling.api.qcloud.com

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is DeleteScalingGroup.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	ID of scaling group. In this case, it represents the scaling group in which the alarm policy to be deleted locates. This parameter can be queried by calling API Query Scaling Group List (DescribeScalingGroup).
scalingPolicyId	Yes	String	ID of the alarm trigger policy; ID of the alarm trigger policy to be deleted in this case. This parameter can be queried by calling API Query Alarm Trigger Policy (DescribeScalingPolicy).

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.
message	String	Module error message description depending on API.

4. Error Codes

Error	Error Code
Default policy cannot be deleted	Conflict.DeleteDefaultScalingPolicyError

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupId=asg-93a83x8x
&scalingPolicyId=sp-iir70sxv
```

Example of returned result is as follows. The code is 0, indicating that the alarm trigger policy has been deleted successfully.

```
{
"code":"0",
"message":"",
"codeDesc":"Success",
"data":[]
}
```

APIs for Timed Tasks
Creating Timed Tasks

Last updated：2018-08-21 16:20:18

1. API Description

This API (CreateScheduledTask) is used to create a new scheduled task.
Domain for API request: scaling.api.qcloud.com

1) Up to 10 scheduled tasks can be created in each scaling group.

2) If the scheduled task triggering execution of the scaling rule fails, it will automatically re-trigger during recurrence.

3) If multiple scheduled tasks trigger execution of a scaling rule of the same scaling group within a similar period of time, the earliest triggering scheduled task will perform the scaling activity first. Since there should be only one scaling activity under the same scaling group at the same time, the subsequent scheduled task will automatically retry the scheduled trigger during recurrence. Where after the completion of the previous scaling activity, the subsequent scheduled task is still retrying in recurrence, the scaling rule of the scheduled task is executed and the corresponding scaling activity is triggered.

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is CreateScheduledTask.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	Scaling group ID of the scheduled task to be created. It can be queried by calling Query Scaling Group List (DescribeScalingGroup) API.
scalingScheduledTaskName	Yes	String	Name defined by the user for the scheduled task to be created.
readjustMaxSize	Yes	Int	Reset the maximum size of the scaling group when the scheduled task is triggered.
readjustMinSize	Yes	Int	Reset the minimum size of the scaling group when the scheduled task is triggered.
startTime	Yes	datetime	Start time of the scheduled task.
endTime	No	datetime	End time for repeated execution of the scheduled task, which is required if the scheduled task needs to be repeated.
recurrence	No	String	Repetition mode of the scheduled task, which is in the standard crontab format `*****`, where the asterisks denoting minute and hour cannot be specified (the first and the second asterisk). This parameter is required if the scheduled task needs to be executed repeatedly.

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.
message	String	Module error message description depending on API.
data	Array	It contains the list information of the scheduled tasks that were created successfully.

Parameter data is composed of only one element: scalingScheduleTaskId.

Parameter Name	Type	Description
scalingScheduleTaskId	Array	It contains the ID of each scheduled task created.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional common error codes, refer to AS Error Code.

Error Code	Description
QuotaExceeded.ScheduledTask	Number of scheduled tasks allowed to be added has been exceeded
NameDuplicate.ScheduledTask	Scheduled task name already exists

InvalidScheduleTask.TimeConflict | Time conflict between scheduled tasks |
| InvalidParameter.EndtimeAndRecurrence | endtime and recurrence must be passed at the same time |

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupId=asg-xxxxxx
&scalingScheduledTaskName=xxxxx
&readjustMaxSize=10
&readjustMinSize=1
&startTime=2016-03-16 12:00:00
&recurrence= * * 1 * *
```

Example of returned result is as below:

```
{
"code":"0",
```

```
"message":"",
"codeDesc":"Success",
"data":{
"scalingScheduleTaskId":[
"xxxxxx"
]
}
}
```

Querying Timed Tasks

Last updated：2018-08-21 16:20:47

1. API Description

This API (DescribeScheduledTask) is used to query the scheduled task information. You can specify the scaling group ID to query all the scheduled tasks under this group.
Domain for API request: scaling.api.qcloud.com

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is DescribeScheduledTask.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	Scaling group ID, which is used for querying scheduled tasks for this scaling group. This parameter can be obtained by calling API Query Scaling Group List (DescribeScalingGroup).
scalingScheduledTaskIds.n	No	String	An array of scheduled task IDs to be queried. The array subscript starts from 0.
scalingScheduledTaskName	No	String	The scheduled task name to be queried.
offset	No	Int	Offset; default is 0.
limit	No	Int	The maximum number of scheduled tasks allowed to be queried at a time. Default is 20.

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.
message	String	Module error message description depending on API.
data	Array	Output result, containing all the scheduled task list information returned for the query.

Parameter data is composed of the following parameters:

Parameter Name	Type	Description
totalCount	Int	Number of scheduled tasks returned for the query
scalingConfigurationSet	Array	Set of scheduled task information.

scalingScheduleTaskSet contains information about a number of scheduled tasks, and the information about each scheduled task is composed of the following parameters:

Parameter Name	Type	Description
scalingScheduledTaskId	String	Scheduled task ID returned for the query.
scalingScheduledTaskName	String	Scheduled task name returned for the query.
readjustMaxSize	Int	Reset the maximum size of the scaling group when the scheduled task is triggered.
readjustMinSize	Int	Reset the minimum size of the scaling group when the scheduled task is triggered.
startTime	String	Start time of the scheduled task
endTime	String	End time of the scheduled task
recurrence	String	The repeated crontab value of the scheduled task.
createTime	String	Creation time of the scheduled task.

4. Error Codes

For common errors on this API, refer to AS Error Code.

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupId=xxxx
```

Example of returned result is as follows. The totalCount is 1, indicating that there is only one scheduled task.

```
{
"code":"0",
"codeDesc":"Success",
"message":"",
"data":{
"totalCount":1,
"scalingScheduleTaskSet":[
{
"scalingScheduledTaskId":"xxxx",
"scalingScheduledTaskName":"xxxx",
"readjustMaxSize":"20",
```

```
"readjustMinSize":"10",
"startTime":"2016-03-17 12:00:00",
"endTime":"2016-03-18 12:00:00",
"recurrence":"* * * * 1",
"createTime":"2016-03-14 18:05:03"
},
]
}
}
```

Modifying Timed Tasks

Last updated：2018-08-21 16:21:08

1. API Description

This API (ModifyScheduledTask) is used to modify scheduled tasks.
Domain for API request: scaling.api.qcloud.com

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is ModifyScheduledTask.

Parameter Name	Required	Type	Description
scalingScheduledTaskId	Yes	String	ID of scheduled task to be modified. This parameter can be obtained by calling API Query Scheduled Task(DescribeScheduledTask).
scalingScheduledTaskName	No	String	Name of scheduled task to be modified. This parameter can be obtained by calling API Query Scheduled Task(DescribeScheduledTask).
readjustMaxSize	No	Int	Reset the maximum size of the scaling group when the scheduled task is triggered.
readjustMinSize	No	Int	Reset the minimum size of the scaling group when the scheduled task is triggered.
startTime	No	datetime	Start time of the scheduled task.
endTime	No	datetime	End time for repeated execution of the scheduled task, which is required if the scheduled task needs to be repeated. If you need to close repeated execution, enter 0000-00-00 00: 00: 00
recurrence	No	String	Repetition mode of the scheduled task, which is in the standard crontab format `*****`, where the asterisks denoting minute and hour cannot be specified (the first and the second asterisk). This parameter is required if the scheduled task needs to be executed repeatedly. If you need to close repeated execution, enter `*****`.

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.

Parameter Name	Type	Description
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.
message	String	Module error message description depending on API.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional common error codes, refer to AS Error Code.

Error Code	Description
NameDuplicate.ScheduledTask	Scheduled task name already exists

InvalidScheduleTask.TimeConflict | Time conflict between scheduled tasks |
| InvalidScheduledTask.NotExist | The scheduled task does not exist |

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupId=asg-xxxxx
&scalingScheduledTaskId=xxxxx
&recurrence=* * * * * 1
```

Example of returned result is as follows. The code is 0, indicating that the scheduled task has been modified successfully.

```
{
"code":"0",
"message":"",
"codeDesc":"Success",
"data":[]
}
```

Deleting Timed Tasks

Last updated：2018-08-21 16:21:27

1. API Description

This API (DeleteScheduledTask) is used to delete a specific scheduled task.
Domain for API request: scaling.api.qcloud.com

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is DeleteScheduledTask.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	Scaling group ID, indicating that the scheduled task to be deleted belongs to the scaling group. This parameter can be obtained by calling API Query Scaling Group List (DescribeScalingGroup).
scalingScheduledTaskId	Yes	String	ID of scheduled task to be deleted. This parameter can be obtained by calling API Query Scheduled Task(DescribeScheduledTask).

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.
message	String	Module error message description depending on API.

4. Error Codes

For common errors on this API, refer to AS Error Code.

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
```

```
&scalingGroupId=asg-xxx
&scalingScheduleTaskId=xxxx
```

Example of returned result is as follows. The code is 0, indicating that the scheduled task has been deleted successfully.

```
{
"code":"0",
"message":"",
"codeDesc":"Success",
"data":[]
}
```

APIs for Lifecycle Hooks
Modifying Lifecycle Hook

Last updated：2018-08-21 16:21:47

1. API Description

This API (CreateLifeCycleHook) is used to modify the configuration of an existing lifecycle hook.
Domain for API request: scaling.api.qcloud.com

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is ModifyLifeCycleHook.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	ID of the scaling group of a lifecycle hook to be modified. It can be queried by calling API Query Scaling Group List(DescribeScalingGroup).
lifeCycleHookId	Yes	String	ID of the lifecycle hook to be modified.
lifeCycleHookName	No	String	Name of the lifecycle hook to be modified.
lifeCycleHookTimeout	No	Int	Timeout of the lifecycle hook to be modified (in seconds).
defaultResult	No	Int	Default timeout action for a lifecycle hook task to be modified; 0: continue, 1: disable
transition	No	Int	Callback condition of the life cycle hook to be modified; 0: sub-machine is being created, 1: sub-machine is being terminated
notifyIds.n	No	String	Notification group ID of the lifecycle hook to be modified, that is, the collection of user group ID (groupID). The Array subscript is started with 0. It can be queried by calling API "Obtain User Group List" (DescribeUserGroup).

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
message	String	Module error message description depending on API.
codeDesc	String	Error code.

Parameter Name	Type	Description
data	Array	It is empty if returned successfully.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional common error codes, refer to AS Error Code.

Error Code	Description
HookParameterError.Transition	Incorrect transition value in the hook (only 0 or 1)
HookParameterError.DefaultResult	Incorrect defaultResult value in the hook (only 0 or 1)
NameDuplicate.LifeCycleHook	The hook name already exists
InvalidParameter.GroupIdInHook	Invalid notification group groupId
InvalidParameter.ScalingGroupIdError	Incorrect scalingGroupId

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupId=asg-xxxxxx
&lifeCycleHookId=lfh-xxxxxx
&lifeCycleHookTimeout=10
```

Example of returned result is as below:

```
{
"code":"0",
"message":"",
"codeDesc": "Success",
"data":[]
}
```

Deleting Lifecycle Hooks

Last updated：2018-08-21 16:22:05

1. API Description

This API (DeleteLifeCycleHook) is used to delete a lifecycle hook.
Domain for API request: scaling.api.qcloud.com

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is DeleteLifeCycleHook.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	ID of the scaling group of a lifecycle hook to be deleted. It can be queried by calling API Query Scaling Group List (DescribeScalingGroup).
lifeCycleHookId	Yes	String	Lifecycle hook ID.
lifeCycleHookName	No	String	Lifecycle hook name

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
message	String	Module error message description depending on API.
codeDesc	String	Error code.
data	Array	It is empty if returned successfully.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional common error codes, refer to AS Error Code.

Error Code	Description
InvalidParameter.ScalingGroupIdError	Incorrect scalingGroupId
Conflict.NameVsLifeCycleHookId	Conflict between the hookId and the name

Error Code	Description
InActivity.HookId	Unable to operate because the hookId is in use
InvalidParameter.ScalingGroupIdError	Incorrect scalingGroupId
InvalidParameter.ScalingGroupIdError	Incorrect scalingGroupId

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupId=asg-xxxx
&notificationIds.0=asn-xxx
```

Example of returned result is as below:

```
{
"code":"0",
"message":"",
"codeDesc":"Success"
"data":[]
}
```

Querying Lifecycle Hooks

Last updated：2018-08-21 16:22:24

1. API Description

This API (DescribeLIfeCycleHook) is used to query the lifecycle hook configuration.
Domain for API request: scaling.api.qcloud.com

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is DescribeLIfeCycleHook.

Parameter Name	Required	Type	Description
scalingGroupId	No	String	ID of the scaling group to which the lifecycle hook to be queried belongs. It can be queried by calling API Query Scaling Group List (DescribeScalingGroup).
lifeCycleHookId	No	String	ID of the lifecycle hook to be queried.
lifeCycleHookName	No	String	Name of the lifecycle hook to be queried.
lifeCycleHookTimeout	No	Int	Timeout of the lifecycle hook to be queried.
transition	No	Int	Callback condition of the lifecycle hook to be queried.
defaultResult	No	Int	Default timeout action for a lifecycle hook to be queried.
offset	No	Int	Offset; default is 0
limit	No	Int	The maximum of scaling configurations that can be queried at a time.

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
message	String	Module error message description depending on API.
codeDesc	String	Error code.
data	Array	Notification list information returned for the query.

Parameter data is composed of the following parameters:

Parameter Name	Type	Description
lifeCycleHookSet	Array	Set containing notification information.

The lifeCycleHookSet contains a number of notification information, and each is composed of the following parameters:

Parameter Name	Type	Description
autoScalingGroupId	String	Returned ID of the scaling group to which the lifecycle hook belongs.
lifeCycleHookId	String	ID of the lifecycle hook returned for the query.
lifeCycleHookName	String	Notification type corresponding to the lifecycle hook returned for the query.
notifyIds	String	Notification group ID corresponding to the lifecycle hook returned for the query.
transition	Int	Callback condition corresponding to the lifecycle hook returned for the query.
defaultResult	Int	Default timeout action for a lifecycle hook returned for the query.

4. Error Codes

For common errors on this API, refer to AS Error Code.

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
```

Example of returned result is as below:

```
{
"code":"0",
"message":"",
"codeDesc":"Success"
"data":{
"lifeCycleHookSet":[
{
"lifeCycleHookTimeout":10,
"lifeCycleHookName":"xxx",
"autoScalingGroupId":"asg-7awqgwmv",
"transition":1,
"defaultResult":1,
"lifeCycleHookId":"lfh-2maknjbc"
},
]
}
}
```

Lifecycle Hook callback completion notification

Last updated：2018-08-21 16:22:43

1. API Description

This API (CompleteLifeCycleHookAction) is used to complete the lifecycle hook callback.
Domain for API request: scaling.api.qcloud.com

1) You can complete the lifecycle hook callback in advance by calling this API.

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is CompleteLifeCycleHookAction.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	ID of the scaling group to which the lifecycle hook belongs. It can be queried by calling API Query Scaling Group List (DescribeScalingGroup)
lifeCycleHookId	Yes	String	Lifecycle hook ID.
scalingInstanceId	Yes	String	Sub-machine ID.
lifeCycleHookResult	Yes	Int	Action after callback is completed; 0: continue; 1: disable.

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
message	String	Module error message description depending on API.
codeDesc	String	Error code.
data	Array	It is empty if returned successfully.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional common error codes, refer to AS Error Code.

Error Code	Description

Error Code	Description
InvalidParameter.ScalingGroupIdError	Incorrect scalingGroupId
HookParameterError.LifeCycleHookResult	Incorrect callback result value in the hook (0: continue; 1: disable)

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupId=asg-xxxxxx
&lifeCycleHookId=lfh-xxxxxx
&scalingInstanceId=ins-xxxxx
&lifeCycleHookResult=1
```

Example of returned result is as below:

```
{
"code":"0",
"message":"",
"codeDesc": "Success",
"data":[]
}
```

Lifetime extension of the hook

Last updated：2018-08-21 16:23:04

1. API Description

This API (RecordLifeCycleHookTimeout) is used to renew a lifecycle hook timeout.
Domain for API request: scaling.api.qcloud.com

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is RecordLifeCycleHookTimeout.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	ID of the scaling group to which the lifecycle hook belongs. It can be queried by calling API Query Scaling Group List (DescribeScalingGroup)
lifeCycleHookId	Yes	String	Lifecycle hook ID.
scalingInstanceId	Yes	String	Sub-machine ID.
recordTimeout	Yes	Int	The timeout to be modified (in seconds).

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
message	String	Module error message description depending on API.
codeDesc	String	Error code.
data	Array	It is empty if returned successfully.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional common error codes, refer to AS Error Code.

Error Code	Description
InvalidParameter.ScalingGroupIdError	Incorrect scalingGroupId

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupId=asg-xxxxxx
&lifeCycleHookId=lfh-xxxxxx
&scalingInstanceId=ins-xxxxx
&recordTimeout=120
```

Example of returned result is as below:

```
{
"code":"0",
"message":"",
"codeDesc": "Success",
"data":[]
}
```

Binding Lifecycle Hooks

Last updated：2018-08-21 16:23:22

1. API Description

This API (AttachLifeCycleHookId) is used to bind a lifecycle hook ID to a scaling group ID and activate the currently bound lifecycle hook.
Domain for API request: scaling.api.qcloud.com

1) A scaling group can only be bound to a lifecycle hook configuration.

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is AttachLifeCycleHookId.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	Scaling group ID. It can be queried by calling API Query Scaling Group List (DescribeScalingGroup)
lifeCycleHookId	Yes	String	Lifecycle hook ID.

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
message	String	Module error message description depending on API.
codeDesc	String	Error code.
data	Array	It is empty if returned successfully.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional common error codes, refer to AS Error Code.

Error Code	Description
Conflict.ScalingGroupIdVsLifeCycleHookId	This lifecycle hook does not exist in the scaling group

Error Code	Description
InvalidParameter.ScalingGroupIdError	Incorrect scalingGroupId

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupId=asg-xxxxxx
&lifeCycleHookId=lfh-xxxxxx
```

Example of returned result is as below:

```
{
"code":"0",
"message":"",
"codeDesc": "Success",
"data":[]
}
```

Unbinding Lifecycle Hooks

Last updated：2018-08-21 16:23:40

1. API Description

This API (DetachLifeCycleHookId) is used to unbind a lifecycle hook ID from a scaling group ID and disable the current lifecycle hook.
Domain for API request: scaling.api.qcloud.com

1) After unbinding, you must rebind the lifecycle hook if you need to use the lifecycle hook again in the scaling group.

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is AttachLifeCycleHookId.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	Scaling group ID. It can be queried by calling API Query Scaling Group List (DescribeScalingGroup)

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
message	String	Module error message description depending on API.
codeDesc	String	Error code.
data	Array	It is empty if returned successfully.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional common error codes, refer to AS Error Code.

Error Code	Description
InvalidParameter.ScalingGroupIdError	Incorrect scalingGroupId

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupId=asg-xxxxxx
```

Example of returned result is as below:

```
{
"code":"0",
"message":"",
"codeDesc": "Success",
"data":[]
}
```

Creating Lifecycle Hooks

Last updated：2018-08-21 16:24:04

1. API Description

This API (CreateLifeCycleHook) is used to create new lifecycle hook configurations.
Domain for API request: scaling.api.qcloud.com

1) When a sub-machine is created or terminated, there's a time window provided after its creation and before its termination for users to complete the initialization or saving of sub-machine data.

2) You can create up to 10 lifecycle hooks in each scaling group, but only one life cycle hook can be bound at a time. When using a lifecycle hook, you need to call the bound scaling group and the callback hook API to activate the currently active lifecycle hook.

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is CreateLifeCycleHook.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	ID of the scaling group of a lifecycle hook to be created. It can be queried by calling API Query Scaling Group List (DescribeScalingGroup).
lifeCycleHookName	Yes	String	Name defined by the user for the lifecycle hook to be created.
lifeCycleHookTimeout	Yes	Int	Timeout (in seconds) defined by the user for the life cycle hook, during which the user can complete the initialization or saving of sub-machine data.
defaultResult	No	Int	Default timeout action for a lifecycle hook task; 0: continue, 1: disable; The default is 0.
transition	No	Int	Callback condition of the life cycle hook; 0: sub-machine is being created, 1: sub-machine is being terminated. The default is 0.
notifyIds.n	No	String	ID of the notification group, that is, the collection of user group ID (groupID). The array subscript is started with 0. It can be queried by calling API "Obtain User Group List" (DescribeUserGroup).

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.

Parameter Name	Type	Description
message	String	Module error message description depending on API.
codeDesc	String	Error code.
data	Array	It contains the list information of the scheduled tasks that were created successfully.

Parameter data is composed of the following parameters, and contains only one element lifeCycleHookId.

Parameter Name	Type	Description
lifeCycleHookId	String	New lifecycle hook ID.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional common error codes, refer to AS Error Code.

Error Code	Description
HookParameterError.Transition	Incorrect transition value in the hook (only 0 or 1)
HookParameterError.DefaultResult	Incorrect defaultResult value in the hook (only 0 or 1)
NameDuplicate.LifeCycleHook	The hook name already exists
InvalidParameter.GroupIdInHook	Invalid notification group groupId
QuotaExceeded.HookLimit	Hook limit exceeded
InvalidParameter.ScalingGroupIdError	Incorrect scalingGroupId

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupId=asg-xxxxxx
&lifeCycleHookName=xxxxx
&lifeCycleHookTimeout=10
&notifyIds.0=1844
```

Example of returned result is as below:

```
{
"code":"0",
"message":"",
"codeDesc": "Success",
"data":{
"lifeCycleHookId":[
```

```
"lfh-xxxxxx"
]
}
}
```

Notification APIs
Creating Notifications

Last updated：2018-08-21 16:24:26

1. API Description

This API (CreateScalingNotification) is used to create notification.
Domain for API request: scaling.api.qcloud.com

1) Each scaling group can create up to 20 notifications. For more information, refer to Service Limits.

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is CreateScalingNotification.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	Scaling group ID of the notification to be created. It can be queried by calling Query Scaling Group List (DescribeScalingGroup) API.
notificationTypes.n	Yes	int	Notification types, which is a collection of notification types that need to be subscribed, ranging from 1 to 6. The specific mapping relationship is as follows: 1: Scale-up Succeeded 2: Scale-up Failed 3: Scale-down Succeeded 4: Scale-down Failed 5: Replacement of Unhealthy Sub-machines Succeeded 6: Replacement of Unhealthy Sub-machines Failed
receiversIds.n	Yes	String	ID of the notification group, that is, the collection of user group ID (groupID). The array subscript is started with 0. You can call API Obtain User Group List (DescribeUserGroup) to query the parameter.

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.
message	String	Module error message description depending on API.

Parameter Name	Type	Description
data	Array	It contains the notification list information that was created successfully.

Parameter data is composed of the following parameters, and contains only one element notificationId.

Parameter Name	Type	Description
notificationId	String	Notification ID.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional common error codes, refer to AS Error Code.

Error Code	Description
InvalidParameter.ScallingGroupId	Cannot match to the corresponding scaling group ID
InvalidParameter.NotifyType	Invalid notification type number

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common Request Parameters>
&scalingGroupId=asg-xxxx
&notificationTypes.0=1
&notificationTypes.1=2
&receiversIds.0=1832
&receiversIds.1=1833
```

Example of returned result is as below:

```
{
"code":"0",
"message":"",
"codeDesc":"Success"
"data":{
"notificationId":"asn-xxxxx"
}
}
```

Querying Notifications

Last updated：2018-08-21 16:25:01

1. API Description

This API (ModifyScalingNotification) is used to modify notification configuration.
Domain for API request: scaling.api.qcloud.com

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is ModifyScalingNotification.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	Scaling group ID of the notification to be modified. It can be queried by calling Query Scaling Group List (DescribeScalingGroup) API.
notificationId	Yes	String	ID of the notification to be modified. It can be queried by calling Query Notification (DescribeScalingNotification) API.
notificationTypes.n	No	String	An array of notification types, which is a collection of scaling activity notifications that need to be subscribed, ranging from 1 to 6. The specific mapping relationship is as follows: 1: Scale-up Succeeded 2: Scale-up Failed 3: Scale-down Succeeded 4: Scale-down Failed 5: Replacement of Unhealthy Sub-machines Succeeded 6: Replacement of Unhealthy Sub-machines Failed
receiversIds.n	No	String	ID of the notification group, that is, the user group ID (groupID). The array subscript is started with 0. You can call API Obtain User Group List (DescribeUserGroup) to query the parameter.

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.
message	String	Module error message description depending on API.

Parameter Name	Type	Description
data	Array	It is empty if returned successfully.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional common error codes, refer to AS Error Code.

Error Code	Description
InvalidParameter.ScallingGroupId	Cannot match to the corresponding scaling group ID
InvalidParameter.NotifyType	Invalid notification type number
InvalidParameter.NotifyPara	Notification parameter is empty
InvalidParameter.NotifyId	Cannot match to the corresponding notification ID
InvalidParameter.GroupId	Cannot match to the corresponding notification group ID

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common Request Parameters>
&scalingGroupId=xxxx
&notificationTypes.0=1
&notificationTypes.1=2
&receiversIds.0=1832
&receiversIds.1=1833
```

Example of returned result is as below:

```
{
"code":"0",
"message":"",
"codeDesc":"Success"
"data":[]
}
```

Modifying Notifications

Last updated：2018-08-21 16:25:45

1. API Description

This API (ModifyScalingNotification) is used to modify notification configuration.
Domain for API request: scaling.api.qcloud.com

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is ModifyScalingNotification.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	Scaling group ID of the notification to be modified. It can be queried by calling Query Scaling Group List (DescribeScalingGroup) API.
notificationId	Yes	String	ID of the notification to be modified. It can be queried by calling Query Notification (DescribeScalingNotification) API.
notificationTypes.n	No	String	An array of notification types, which is a collection of scaling activity notifications that need to be subscribed, ranging from 1 to 6. The specific mapping relationship is as follows: 1: Scale-up Succeeded 2: Scale-up Failed 3: Scale-down Succeeded 4: Scale-down Failed 5: Replacement of Unhealthy Sub-machines Succeeded 6: Replacement of Unhealthy Sub-machines Failed
receiversIds.n	No	String	ID of the notification group, that is, the user group ID (groupID). The array subscript is started with 0. You can call API Obtain User Group List (DescribeUserGroup) to query the parameter.

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.
message	String	Module error message description depending on API.

Parameter Name	Type	Description
data	Array	It is empty if returned successfully.

4. Error Codes

The following error codes only include the business logic error codes for this API. For additional common error codes, refer to AS Error Code.

Error Code	Description
InvalidParameter.ScallingGroupId	Cannot match to the corresponding scaling group ID
InvalidParameter.NotifyType	Invalid notification type number
InvalidParameter.NotifyPara	Notification parameter is empty
InvalidParameter.NotifyId	Cannot match to the corresponding notification ID
InvalidParameter.GroupId	Cannot match to the corresponding notification group ID

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
&scalingGroupId=xxxx
&notificationTypes.0=1
&notificationTypes.1=2
&receiversIds.0=1832
&receiversIds.1=1833
```

Example of returned result is as below:

```
{
"code":"0",
"message":"",
"codeDesc":"Success"
"data":[]
}
```

Deleting Notifications

Last updated：2018-08-21 16:26:05

1. API Description

This API (DeleteScalingNotification) is used to delete notification.
Domain for API request: scaling.api.qcloud.com

2. Input Parameters

The following request parameter list only provides API request parameters. Common request parameters need to be added when the API is called. For more information, refer to Common Request Parameters. The Action field for this API is DeleteScalingNotification.

Parameter Name	Required	Type	Description
scalingGroupId	Yes	String	Scaling group ID of the notification to be deleted. It can be queried by calling Query Scaling Group List (DescribeScalingGroup) API.
notificationIds.n	Yes	String	Notification ID, which is a collection of notification IDs that need to be deleted

3. Output Parameters

Parameter Name	Type	Description
code	Int	Common error code; 0: Succeeded; other values: Failed. For more information, please refer to Common Error Codes on the Error Code page.
codeDesc	String	Error code at business side. If the task succeeds, it will return "Success"; if the task fails, the specific business error reason will be returned.
message	String	Module error message description depending on API.
data	Array	It is empty if returned successfully.

4. Error Codes

For common errors on this API, refer to AS Error Code.

5. Example

```
https://scaling.api.qcloud.com/v2/index.php?
&<Common request parameters>
```

```
&scalingGroupId=asg-xxxx
&notificationIds.0=asn-xxx
```

Example of returned result is as below:

```
{
"code":"0",
"message":"",
"codeDesc":"Success"
"data":[]
}
```