

Alibaba Cloud Server Load Balancer

Developer Guide

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Generic conventions

Table -1: Style conventions

Style	Description	Example
	This warning information indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	 Danger: Resetting will result in the loss of user configuration data.
	This warning information indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	 Warning: Restarting will cause business interruption. About 10 minutes are required to restore business.
	This indicates warning information, supplementary instructions, and other content that the user must understand.	 Notice: Take the necessary precautions to save exported data containing sensitive information.
	This indicates supplemental instructions, best practices, tips, and other content that is good to know for the user.	 Note: You can use Ctrl + A to select all files.
>	Multi-level menu cascade.	Settings > Network > Set network type
Bold	It is used for buttons, menus, page names, and other UI elements.	Click OK.
<code>Courier font</code>	It is used for commands.	Run the <code>cd / d C :/ windows</code> command to enter the Windows system folder.
<i>Italics</i>	It is used for parameters and variables.	<code>bae log list --instanceid Instance_ID</code>
[] or [a b]	It indicates that it is an optional value, and only one item can be selected.	<code>ipconfig [-all -t]</code>

Style	Description	Example
<code>{}</code> or <code>{a b}</code>	It indicates that it is a required value, and only one item can be selected.	<code>switch {stand slave}</code>

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1 API overview

This topic lists available Server Load Balancer (SLB) APIs.

2 Call SLB APIs

When you call Server Load Balancer (SLB) APIs, HTTP GET requests are sent to the API service address of SLB, and the system responds according to the parameters set in the request. Both the requests and responses are UTF-8 encoded.

Request syntax

SLB APIs use RPC style. To call SLB APIs, send HTTP GET requests.

The structure of an SLB API request is as follows:

```
http :// Endpoint /? Action = xx & Parameters
```

where,

- **Endpoint** : The service address of SLB APIs is `slb.aliyuncs.com`.
- **Action** : the name of the action. For example, if you need to query created SLB instances, the action is `DescribeLoadBalancers`.
- **Version** : the version of the API. The version of SLB APIs is `2014 - 05 - 15`.
- **Parameters** : the request parameters. Separate multiple parameters by using ampersands (&).

Request parameters include common parameters and API-specific parameters.

Common parameters include API version and identity authentication information among other parameters. For more information, see [Common parameters](#).

The following is an example of calling `DescribeLoadBalancers` to query created SLB instances.



Note:

The following code has been edited to ease readability.

```
https :// slb . aliyuncs . com /? Action = DescribeLo  adBalancer  s
& Format = xml
& Version = 2014 - 05 - 15
& Signature = xxxx % xxxx % 3D
& SignatureM ethod = HMAC - SHA1
& SignatureN  once = 1521552885  2396
& SignatureV ersion = 1 . 0
& AccessKeyI  d = key - test
& TimeStamp = 2012 - 06 - 01T12 : 00 : 00Z
```

...

RAM user authorization

To maintain account security, we recommend that you use the Access Keys (AKs) of RAM users to call APIs. Before you call APIs by using the AKs of RAM users, you need to grant permissions to the RAM users by attaching corresponding policies to them.

For more information, see [RAM authentication](#).

Request signature

Authentication is required by the SLB service for each API call, which is provided by the inclusion of signature information in the request.

For more information about the calculation of signatures, see [RPC API signature](#).

SLB uses an AccessKeyID and AccessKeySecret pair (that is, an AK) and symmetric encryption to authenticate the identity of the request sender. AKs are certificates that Alibaba Cloud issues to Alibaba Cloud accounts and RAM users for authentication. It is similar to a logon password. The AccessKeyID is used to identify the visitor's identity. The AccessKeySecret is the key used to encrypt the signature string. The server uses the AccessKeySecret to decrypt the signature string. The AccessKeySecret must be kept confidential.

A request in an API call is signed in the following format:

```
https :// endpoint /? SignatureV ersion = 1 . 0 & SignatureM ethod
= HMAC - SHA1 & Signature = CT9X0VtwR8 6fNWSnsc6v 8YG0juE % 3D &
SignatureN once = 3ee8c1b8 - 83d3 - 44af - a94f - 4e0ad82fd6 cf
```

Take the API call of DescribeLoadBalancers as an example. If your AccessKeyID is `testid`, and your AccessKeySecret is `testsecret`, then, the URL in the signature is as follows:

```
http :// slb . aliyuncs . com /? Action = DescribeLo adBalancer s
& TimeStamp = 2016 - 02 - 23T12 : 46 : 24Z
& Format = XML
& AccessKeyI d = testid
& SignatureM ethod = HMAC - SHA1
& SignatureN once = 3ee8c1b8 - 83d3 - 44af - a94f - 4e0ad82fd6 cf
& Version = 2014 - 05 - 26
& SignatureV ersion = 1 . 0
```

To generate the signature, follow these steps:

1. Create the string to be signed by using the request parameter.

```
GET &% 2F & AccessKeyI d % 3Dtestid % 26Action % 3DDescribe
Regions % 26Format % 3DXML % 26Signatur eMethod % 3DHMAC - SHA1 %
26Signatur eNonce % 3D3ee8c1b8 - 83d3 - 44af - a94f - 4e0ad82fd6
cf % 26Signatur eVersion % 3D1 . 0 % 26TimeStam p % 3D2016 - 02 -
23T12 % 253A46 % 253A24Z % 26Version % 3D2014 - 05 - 26
```

2. Calculate the HMAC value of the string.

Add an ampersand (&) after the AccessKeySecret to add the key of the HMAC value.

In this example, the key is `testsecret &`.

```
CT9X0VtwR8 6fNWSnsc6v 8YG0juE =
```

3. Add the signature to the request parameter.

```
http :// slb . aliyuncs . com /? Action = DescribeLo adBalancer
s
& TimeStamp = 2016 - 02 - 23T12 : 46 : 24Z
& Format = XML
& AccessKeyI d = testid
& SignatureM ethod = HMAC - SHA1
& SignatureN once = 3ee8c1b8 - 83d3 - 44af - a94f - 4e0ad82fd6 cf

& Version = 2014 - 05 - 26
& SignatureV ersion = 1 . 0
& Signature = CT9X0VtwR8 6fNWSnsc6v 8YG0juE % 3D
```

3 Common parameters

Common request parameters

Common request parameters are request parameters used by each API.

Table 3-1: Common request parameters

Name	Type	Require	Description
Format	String	No	The format of the response to return. Valid values: JSON (default) XML
Version	String	Yes	The version of the API in the format of YYYY-MM-DD. Valid value: 2014 - 05 - 15
AccessKeyId	String	Yes	The AccessKey ID of the user that calls the API.
Signature	String	Yes	The signature result string.
SignatureMethod	String	Yes	The algorithm used to create the request signature. Valid value: HMAC - SHA1
Timestamp	String	Yes	The timestamp of the request in the format of YYYY-MM-DDThh:mm:ssZ. For example, 2013-01-10T12:00:00Z.
SignatureVersion	String	Yes	The signature version to use. Valid value: 1 . 0
SignatureNonce	String	Yes	A unique random number used to prevent from network replay attacks. Different random numbers must be used for different requests.
ResourceOwnerAccount	String	No	The account owner of the resource that this request calls.

Examples

```
http :// slb . aliyuncs . com /? Action = DescribeLoadBalancers
& TimeStamp = 2014 - 05 - 19T10 % 3A33 % 3A56Z
& Format = xml
& AccessKeyId = testid
& SignatureMethod = Hmac - SHA1
& SignatureNonce = NwDaxvLU6t FE0DVb
& Version = 2014 - 05 - 15
& SignatureVersion = 1 . 0
& Signature = Signature
```

Common response parameters

The API response uses unified format. Returning 2XX HTTP status code indicates a successful call; returning 4xx or 5xx HTTP status code indicates a failed call. When a call succeeds, the formats of the returned data include XML and JSON. You can specify the format of the returned data when sending the request. The default format is XML.

No matter the call is successful or not, the system returns a unique identification code (RequestId) each time you send a request.

- XML format

```
<? xml version =" 1 . 0 " encoding =" utf - 8 "? >
<!-- The root node of the result -->
< Action + Response >
  <!-- The returned request tag -->
  < RequestId > 4C467B38 - 3910 - 447D - 87BC - AC049166F2 16
</ RequestId >
  <!-- The returned result -->
</ Action + Response >
```

- JSON format

```
{
  " RequestId ":" 4C467B38 - 3910 - 447D - 87BC - AC049166F2 16
",
  /* The returned result */
}
```

4 Obtain an Access Key

This topic describes how to create an Access Key (AK) for your Alibaba Cloud account and RAM users. You need the AK for authentication to call API actions.

Context

An AK consists of an AccessKeyId and AccessKeySecret.

- An AccessKeyId is used to identify the user.
- An AccessKeySecret is the key used to authenticate the user. AccessKeySecret must be kept secret.

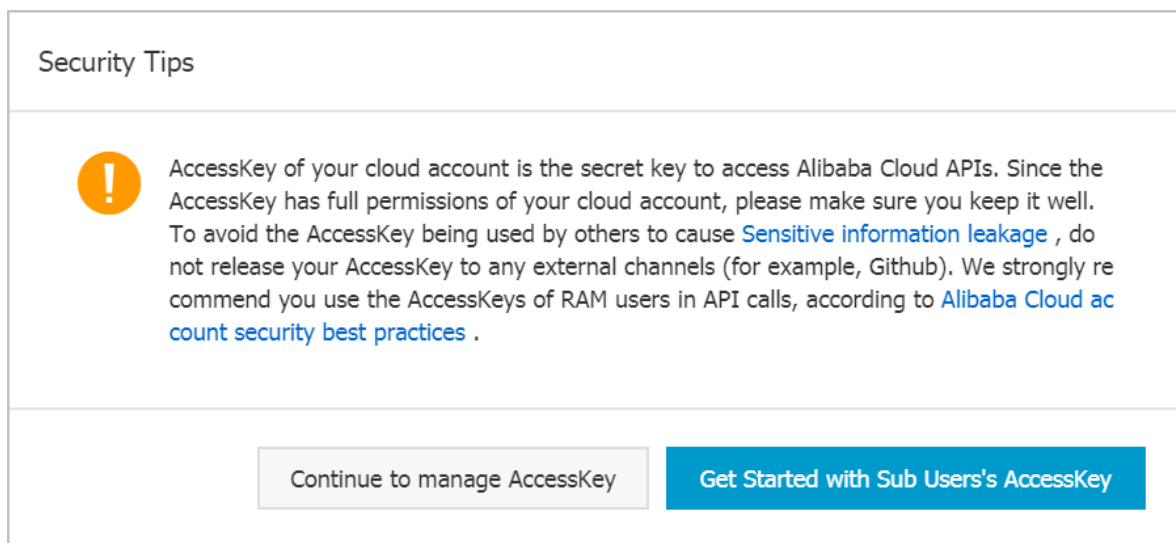


Warning:

Do not use the AK of your account because this provides full access to all your resources. Instead, we recommend that you create and authorize RAM users to access your resources to maintain account security.

Procedure

1. Log on to the [Alibaba Cloud console](#) with your account credentials.
2. Rest the pointer over the image in the upper-right corner of the page and click AccessKey.
3. In the Security Tips dialog box, select Continue to manage AccessKey or Get Started with Sub Users' AccessKey.



4. Obtain an AK.

- Obtain an AK for your account.
 - a. Click Continue to manage AccessKey.
 - b. On the Security Management page, click Create AccessKey.
 - c. On the Phone Verification page, obtain the verification code, complete the verification process, and click Confirm.
 - d. On the Create User AccessKey page, click AccessKey Details to view the AccessKeyId and AccessKeySecret. You can click Save AccessKey Information to download the AK.

Create User AccessKey

CAUTION: The user AccessKey must be downloaded immediately. It will not be available after this session.

✓ AccessKey created.

AccessKey Details

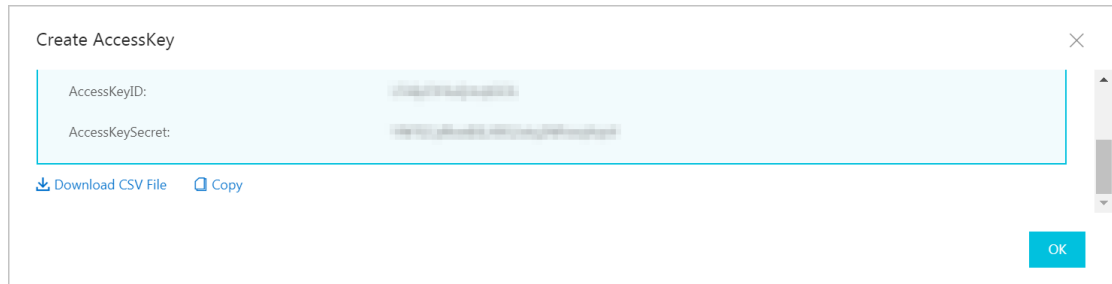
AccessKeyID : [blurred]

AccessKeySecret : [blurred]

Save AccessKey Information

- Obtain an AK for a RAM user
 - a. Click Get Started with Sub Users' AccessKey.
 - b. Go to the [RAM console](#) and create a RAM user on the Create User page. Skip this step if you have created a RAM user.
 - c. Go to the [RAM console](#) and in the left-side navigation pane, choose Identities > Users.
 - d. Find the target RAM user and click the user logon name. Then, click the Authentication tab. In the Access Keys section, click Create AccessKey.

- e. On the Phone Verification page, obtain the verification code, complete the verification process, and click Confirm.
- f. On the Create AccessKey page, view the AccessKeyId and AccessKeySecret. To download or save the AK, click Download CSV File or Copy.



5 RAM authentication

Before you call Server Load Balancer (SLB) APIs as a RAM user, you must grant the RAM user corresponding permissions by using your Alibaba Cloud account. Specifically, you need to create an authorization policy and attach the policy to the RAM user. In the policy, you need to use an Alibaba Cloud Resource Name (ARN) to specify the resource that you want the RAM user to access. The following table lists the ARNs of SLB resources.

SLB resources

The following table lists the SLB resources that can be authorized and the corresponding ARNs.

Resource	ARN
LoadBalancer	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
	acs:slb:\$regionid:\$accountid:loadbalancer/*
	acs:slb:*\$accountid:loadbalancer/*
	acs:slb:*:*:loadbalancer/*
Certificate	acs:slb:\$regionid:\$accountid:certificate/\$servercertificateid
	acs:slb:\$regionid:\$accountid:certificate/*
ACL	acs:slb:\$regionid:\$accountid:acl/*
	acs:slb:\$regionid:\$accountid:acl/\$aclid

\$ regionid / accountid / servercertificateid is the resource ID, and * indicates all corresponding resources.

SLB APIs

The following table lists SLB APIs that can be authorized and the corresponding ARNs.

API	ARN
CreateLoadBalancer	acs:slb:\$regionid:\$accountid:loadbalancer/*
ModifyLoadBalancerInternetSpec	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid

API	ARN
DeleteLoadBalancer	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
SetLoadBalancerStatus	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
SetLoadBalancerName	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
DescribeLoadBalancers	acs:slb:\$regionid:\$accountid:loadbalancer/*
DescribeLoadBalancerAttributes	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
DescribeRegions	acs:slb:*\$accountid:*
UploadServerCertificate	acs:slb:%s:%s:certificate/*
DeleteServerCertificate	acs:slb:%s:%s:certificate/%
DescribeServerCertificate	acs:slb:%s:%s:certificate/%
SetServerCertificateName	acs:slb:%s:%s:certificate/%
DescribeServerCertificates	acs:slb:%s:%s:certificate/*
CreateLoadBalancerHTTPListener	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
CreateLoadBalancerHTTPSListener	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
	acs:slb:%s:%s:certificate/%
CreateLoadBalancerTCPListener	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
CreateLoadBalancerUDPListener	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
DeleteLoadBalancerListener	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
StartLoadBalancerListener	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
StopLoadBalancerListener	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
SetLoadBalancerHTTPListener	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid

API	ARN
SetLoadBalancerHTTPSListener	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
	acs:slb:%s:%s:certificate/%
SetLoadBalancerTCPListener	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
SetLoadBalancerUDPListener	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
DescribeLoadBalancerHTTPListeners	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
DescribeLoadBalancerHTTPSListeners	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
DescribeLoadBalancerTCPListeners	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
DescribeLoadBalancerUDPListeners	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
AddBackendServers	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
	acs:ecs:\$regionid:\$accountid:instance/\$instanceid
RemoveBackendServers	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
	acs:ecs:\$regionid:\$accountid:instance/\$instanceid
SetBackendServers	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
	acs:ecs:\$regionid:\$accountid:instance/\$instanceid
DescribeHealthStatus	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
CreateVServerGroup	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
	acs:ecs:\$regionid:\$accountid:instance/\$instanceid
SetVServerGroupAttribute	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
DeleteVServerGroup	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid

API	ARN
DescribeVServerGroups	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
DescribeVServerGroupAttributes	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
AddVServerGroupBackendServers	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
	acs:ecs:\$regionid:\$accountid:instance/\$instanceid
RemoveVServerGroupBackendServers	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
	acs:ecs:\$regionid:\$accountid:instance/\$instanceid
ModifyVServerGroupBackendServers	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
	acs:ecs:\$regionid:\$accountid:instance/\$instanceid
CreateAccessControlList	acs:slb:\$regionid:\$accountid:acl/*
DeleteAccessControlList	acs:slb:\$regionid:\$accountid:acl/\$aclid
DescribeAccessControlLists	acs:slb:\$regionid:\$accountid:acl/\$aclid
DescribeAccessControlListAttributes	acs:slb:\$regionid:\$accountid:acl/\$aclid
SetAccessControlListAttributes	acs:slb:\$regionid:\$accountid:acl/\$aclid
AddAccessControlListEntry	acs:slb:\$regionid:\$accountid:acl/\$aclid
RemoveAccessControlListEntry	acs:slb:\$regionid:\$accountid:acl/\$aclid

6 Server Load Balancer (SLB) instances

6.1 CreateLoadBalancer

Creates an SLB instance.

Before you call this API, note the following:

- After an SLB instance is created, fees are incurred.
- If you do not specify the instance specification (LoadBalancerSpec), a shared-performance instance is created. Therefore, we recommend that you call the LoadBalancerSpec API to specify the instance specification when you create an SLB instance.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	CreateLoadBalancer	The name of this action. Value: CreateLoadBalancer
RegionId	String	Yes	cn-hangzhou-d	The region ID of the SLB instance to be created. To query the region ID of an SLB instance, call DescribeRegions .
Address	String	No	192.168.0.1	Optional. The private IP address of the SLB instance , which must belong to the destination CIDR block of the corresponding switch.

Parameter	Type	Required?	Example value	Description
AddressIPVersion	String	No	ipv4	Optional. The IP version of the SLB instance to be created, which can be set to ipv4 or ipv6.
AddressType	String	No	internet	Optional. The network type of the SLB instance. Valid values: - internet: After an Internet SLB instance is created, the system allocates a public IP address so that the instance can forward requests from the Internet. - intranet: After an intranet SLB instance is created, the system allocates an intranet IP address so that the instance can only forward intranet requests.
AutoPay	Boolean	No	true	Optional. Indicates whether to automatically pay the bill for a Subscription Internet instance. Valid values: true false. Default value: false  Note: This parameter applies only to the China site.
Bandwidth	Integer	No	10	Optional. The peak bandwidth of the listener. Unit: Mbit/s

Parameter	Type	Required?	Example value	Description
ClientToken	String	No	5A2CFF0E-5718-45B5-9D4D-70B3FF3898	Optional. Guarantees the idempotence of the request. The value of this parameter is generated by the client and is unique among different requests. It can contain up to 64 ASCII characters.
DeleteProtection	String	No	on	Optional. Indicates whether to enable deletion protection to protect the SLB instance from being mistakenly deleted.
Duration	Integer	No	1	Optional. The subscription duration of a Subscription Internet instance. Valid values: • If the value of PricingCycle is month, the value range for this parameter is from 1 to 9. • If the value of PricingCycle is year, the value range for this parameter is from 1 to 3.  Note: This parameter applies only to the China site.
InternetChargeType	String	No	paybytraffic	Optional. The billing method of an Internet instance. Valid values: • paybytraffic: billed based on traffic (default value)

Parameter	Type	Required ?	Example value	Description
LoadBalancerName	String	No	abc	Optional. The name of the SLB instance to be created. The name must be 2 to 128 characters in length. It must start with a letter or a Chinese character, and can contain numbers, underscores (_), periods (.), and hyphens (-). If this parameter is not specified, an instance name is assigned by the system.

Parameter	Type	Required?	Example value	Description
LoadBalancerSpec	String	No	slb.s2.small	Optional. The specification of the SLB instance to be created. Valid values: · slb.s1.small · slb.s2.small · slb.s2.medium · slb.s3.small · slb.s3.medium · slb.s3.large The available specifications vary by region. Currently, guaranteed-performance instances are supported in the following regions: China (Qingdao), China (Beijing), China (Hangzhou), China (Shanghai), China (Shenzhen), China (Zhangjiakou), China (Hohhot), Singapore, UK (London), Germany (Frankfurt), Australia (Sydney), Malaysia (Kuala Lumpur), UAE (Dubai), Indonesia (Jakarta), US (Silicon Valley), India (Mumbai), Japan (Tokyo), China (Hong Kong), and US (Virginia).  Note: If you do not specify the specification of the SLB instance to be created, a shared-performance instance is created.

Parameter	Type	Required ?	Example value	Description
MasterZoneId	String	No	cn-hangzhou-b	Optional. The primary zone ID of the SLB instance to be created. To query the primary zone ID of the instance to be created, call DescribeZones .
PayType	String	No	PayOnDemand	Optional. The billing method of the SLB instance to be created. Valid values: PayOnDemand: Pay-As-You-Go
PricingCycle	String	No	month	Optional. The billing cycle of a Subscription Internet instance. Valid values: month year  Note: This parameter applies only to the China site.
ResourceGroupId	String	No	rg-atstuj3rtopt****	Optional. The ID of the enterprise resource group to which the SLB instance to be created belongs.
SlaveZoneId	String	No	cn-hangzhou-d	Optional. The secondary zone ID of the SLB instance. To query the primary and secondary zones in a region, call DescribeZones .

Parameter	Type	Required ?	Example value	Description
VSwitchId	String	No	vsw- bp12mw1f8k 3jgy*****	Optional. The ID of the VSwitch to which an SLB instance of the VPC network belongs. This parameter must be specified if you want to create an SLB instance of the VPC network. If this parameter is specified, the value of AddressType is set to intranet by default.
VpcId	String	No	vpc- bp1aevy8so fi8mh1*****	Optional. The ID of the VPC to which the SLB instance to be created belongs.

Response parameters

Parameter	Type	Example value	Description
LoadBalancerId	String	139a00604ad-cn-east-hangzhou-01	The ID of the SLB instance.
Address	String	42.250.6.36	The IP address of the SLB instance.
VpcId	String	vpc-25dvzy9f8	The ID of the VPC to which the SLB instance belongs.
VSwitchId	String	vsw-255ecr***	The ID of the VSwitch to which the SLB instance belongs.
LoadBalancerName	String	abc	The name of the SLB instance.
AddressIPVersion	String	ipv4	The IP version of the SLB instance.

Parameter	Type	Example value	Description
NetworkType	String	classic	The network type of the SLB instance.
OrderId	Long	201429619788910	The order ID.
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The request ID.
ResourceGroupId	String	rg-atstuj3rtoptyui	The ID of the enterprise resource group.

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = CreateLoad Balancer
& RegionId = cn - hangzhou
& < CommonParameters >
```

Response examples

XML format

```
< CreateLoad BalancerResponse >
  < NetworkType > vpc </ NetworkType >
  < LoadBalancerName > abc </ LoadBalancerName >
  < Address > 192 . 168 . 0 . 6 </ Address >
  < ResourceGroupId > rg - acfmazb ***</ ResourceGroupId >
  < RequestId > AB197CF0 - D9E9 - 4475 - A89D - 35DBCCF13B BE </
  RequestId >
  < AddressIPVersion > ipv4 </ AddressIPVersion >
  < LoadBalancerId > lb - bp1b6c719d fa0 ***</ LoadBalancerId >
  < VSwitchId > vsw - bp12mw1f8k 3jgygk9 ****</ VSwitchId >
  < VpcId > vpc - bp1aevy8so fi8mh1q ***</ VpcId >
</ CreateLoad BalancerResponse >
```

JSON format

```
{
  " NetworkType ": " vpc ",
  " LoadBalancerName ": " abc ",
  " RequestId ": " AB197CF0 - D9E9 - 4475 - A89D - 35DBCCF13B BE ",
  " ResourceGroupId ": " rg - acfmazb4p h ****",
  " Address ": " 192 . 168 . 0 . 6 ",
  " AddressIPVersion ": " ipv4 ",
  " LoadBalancerId ": " lb - bp1b6c719d fa08ex ****",
  " VSwitchId ": " vsw - bp12mw1f8k 3jgygk9 ****",
  " VpcId ": " vpc - bp1aevy8so fi8mh1 ****"
```

```
}
```

Error codes

[See common error codes.](#)

6.2 ModifyLoadBalancerInternetSpec

You can call the `ModifyLoadBalancerInternetSpec` API to modify the billing method for an Internet SLB instance.

- Modify the peak bandwidth for an instance that is charged by bandwidth. The operation takes effect immediately after the modification.
- Change the billing method from traffic-based billing to bandwidth-based billing. This operation takes effect from 00:00 the next day.
- Change the billing method from bandwidth-based billing to traffic-based billing. This operation takes effect from 00:00 the next day.

Debug

Click [here](#) to perform a debug operation in OpenAPI Explorer and automatically generate an SDK code example.

Request parameters

Name	Type	Required?	Example value	Description
Action	String	Yes	ModifyLoadBalancerInternetSpec	The action to perform. Valid value: <code>ModifyLoadBalancerInternetSpec</code>
LoadBalancerId	String	Yes	lb-bp1b6c719dfa08exfuca5	The ID of the SLB instance
RegionId	String	Yes	cn-hangzhou	The region to which the SLB instance belongs. You can query the region ID by referring to the list of regions and zones , or by calling the DescribeRegions API.

Name	Type	Required ?	Example value	Description
AutoPay	Boolean	No	false	Whether to automatically pay the bill of a Subscription Internet instance. Valid values: true false (default value).
Bandwidth	Integer	No	10	The peak bandwidth of an Internet instance that is billed by bandwidth. The listeners in this instance share the specified bandwidth. For more information, see Share bandwidth. Valid values: 1–5000 Mbit/s (the peak bandwidth varies by region).  Note: This parameter is not required for the instance that is billed by traffic (the value of the InternetChargeType parameter is paybytraffic).
InternetChargeType	String	No	paybytraffic	The billing method of an Internet instance. Valid values: paybytraffic: billed by traffic  Note: If you do not specify this parameter, the original billing method is maintained.
OwnerAccount	String	No	OwnerAccount	OwnerAccount

Response parameters

Name	Type	Example value	Description
OrderId	Long	201429619788910	The order ID of a Subscription instance
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = ModifyLoad BalancerIn  
ternetSpec  
& LoadBalanc erId = lb - bp1b6c719d fa08exfuca 5  
&< CommonPara meters >
```

Normal response examples

XML format

```
< ModifyLoad BalancerIn ternetSpec Response >  
  < RequestId > E4DD2D80 - 8DC0 - 4A2E - BFBA - BE983A31AF ED </  
  RequestId >  
</ ModifyLoad BalancerIn ternetSpec Response >
```

JSON format

```
{  
  " RequestId ":" E4DD2D80 - 8DC0 - 4A2E - BFBA - BE983A31AF ED "  
}
```

Error codes

HttpCode	Error code	Error message	Description
400	Operation. NotAllowed	Operation Denied. Unfinished order exists.	The operation is not allowed. An unfinished purchase order exists.
400	Operation. NotAllowed	Operation Denied. Unfinished purchase exists.	The operation is not allowed. An unfinished purchase order exists.

HttpCode	Error code	Error message	Description
400	Operation. NotAllowed	Operation Denied. Prepay instance only permitted to modify internet bandwidth.	The operation is not allowed. An unfinished purchase order exists.
400	Operation. NotAllowed	Operation Denied. Prepay instance only permitted to increase internet bandwidth.	The operation is not allowed. An unfinished purchase order exists.
400	Operation. NotAllowed	Operation Denied. The Purchase status of the instance is not valid.	The operation is not allowed. An unfinished purchase order exists.

[Click here to view the error codes.](#)

6.3 DeleteLoadBalancer

Deletes a Pay-As-You-Go SLB instance.



Note:

When you delete a Pay-As-You-Go SLB instance, all associated configurations (such as listeners or tags) are deleted at the same time.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DeleteLoadBalancer	The name of this action. Value: DeleteLoadBalancer
LoadBalancerId	String	Yes	lb-bp1h66tp5uat84khamqc9e	The ID of the SLB instance.

Parameter	Type	Required?	Example value	Description
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs. To query the region ID, call DescribeRegions .

Response parameters

Parameter	Type	Example value	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request.

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = DeleteLoadBalancer
& LoadBalancerId = lb-bp1h66tp5uat84khmqc9e
& < CommonParameters >
```

Response examples

XML format

```
< DeleteLoadBalancerResponse >
  < RequestId > E3F602B8-A162-4683-A7EC-49364E597259 </
  RequestId >
</ DeleteLoadBalancerResponse >
```

JSON format

```
{
  "RequestId": "0D9B7343-AC1F-498C-A18A-78FE14A7C3A3"
}
```

If you enable the deletion protection function, the following error is reported when you delete an SLB instance.

- JSON format

```
{
  "RequestId": "7B7AB375-1EA6-4A18-9D1C-F258F2D57638",
  "HostId": "slb.aliyuncs.com",
}
```

```
" Code ": " OperationD enied . DeleteProt ectionIsOn ",
" Message ": " The loadbalanc er can ' t be deleted due
to DeleteProt ection is enabled . "
}
```

- XML format

```
<? xml version =" 1 . 0 " encoding =" UTF - 8 " ? >
< DeleteLoad Babalancer Response >
< RequestId > 7B7AB375 - 1EA6 - 4A18 - 9D1C - F258F2D576 38 </
RequestId >
< HostId > slb . aliyuncs . com </ HostId >
< Code > OperationD enied . DeleteProt ectionIsOn </ Code >
< Message > The loadbalanc er can ' t be deleted due
to DeleteProt ection is enabled . </ Message >
</ DeleteLoad Babalancer Response >
```

Error codes

[See common error codes.](#)

6.4 SetLoadBalancerStatus

Sets the status of an SLB instance.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	SetLoadBal ancerStatus	The name of this action. Value: SetLoadBalancerStatus
LoadBalanc erId	String	Yes	lb-bp1b6c719d fa08exfuca5	The ID of the SLB instance.

Parameter	Type	Required?	Example value	Description
LoadBalancerStatus	String	Yes	active	The status of the SLB instance. Valid value: active inactive - active (default value) If you set the status of an SLB instance to active, the listeners in the instance can distribute traffic according to the specified rules. By default, the status of a newly created SLB instance is active. - inactive If you set the status of an SLB instance to inactive, the listeners in the instance stops distributing traffic.  Note: The status of an SLB instance changes to inactive if all the listeners of the instance are deleted.
RegionId	String	Yes	cn-hangzhou-d	The ID of the region to which the SLB instance belongs. To query the region ID, refer to the list of regions and zones or call DescribeRegions.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = SetLoadBalancerStatus  
& LoadBalancerId = lb-bp1b6c719d-fa08exfuca-5  
& LoadBalancerStatus = active  
&< CommonParameters >
```

Response examples

XML format

```
< SetLoadBalancerStatusResponse >  
  < RequestId > E6DDFE22 - F019 - 4F34 - B8DD - FD14973450 A6 </  
  RequestId >  
</ SetLoadBalancerStatusResponse >
```

JSON format

```
{  
  "RequestId ":" E6DDFE22 - F019 - 4F34 - B8DD - FD14973450 A6 "  
}
```

Error codes

[See common error codes.](#)

6.5 SetLoadBalancerName

Modifies the name of an SLB instance.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	SetLoadBalancerName	The name of this action. Value: SetLoadBalancerName
LoadBalancerId	String	Yes	lb-bp1b6c719dfa08exfuca5	The ID of the SLB instance.
LoadBalancerName	String	Yes	abc1	The name of the SLB instance. The name must be 2 to 128 characters in length and can contain letters, numbers, Chinese characters, underscores (_), periods (.), and hyphens (-). It must start with a letter or a Chinese character.
RegionId	String	Yes	cn-hangzhou-d	The ID of the region to which the SLB instance belongs. To query the region ID, refer to the list of regions and zones or call DescribeRegions .

Response parameters

Parameter	Type	Example value	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request.

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = SetLoadBalancerName
& LoadBalancerId = lb - bp1b6c719d fa08exfuca 5
& LoadBalancerName = abc1
```

&< CommonParameters >

Response examples

XML format

```
< SetLoadBalancerNameResponse >
  < RequestId > 3C7F675E - 9F82 - 4806 - BA47 - FF57E3ACC8 50 </
  RequestId >
</ SetLoadBalancerNameResponse >
```

JSON format

```
{
  "RequestId": "3C7F675E - 9F82 - 4806 - BA47 - FF57E3ACC8 50"
}
```

Error codes

[See common error codes.](#)

6.6 DescribeLoadBalancers

Queries one or more SLB instances.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeLoadBalancers	The name of this action. Value: DescribeLoadBalancers
RegionId	String	Yes	cn-hangzhou-d	The region to which the SLB instance to be queried belongs. To query the region ID, refer to the list of regions and zones or call DescribeRegions .

Parameter	Type	Required ?	Example value	Description
Address	String	No	192.168.0.6	Optional. The IP address of the SLB instance to be queried.
AddressIPVersion	String	No	ipv4	Optional. The IP version, which can be set to ipv4 or ipv6.  Note: Currently, you can create IPv6 instances and the instance type must be guaranteed-performance instances in the following zones: Zones E and F in China (Hangzhou), Zones F and G in China (Beijing), all zones in China (Shanghai), and Zones D and E in China (Shenzhen).
AddressType	String	No	intranet	Optional. The network type of the SLB instance to be queried. Valid values: intranet internet
InternetChargeType	String	No	paybybandwidth	Optional. The billing method of an Internet SLB instance. Valid values: paybybandwidth paybytraffic
LoadBalancerId	String	No	lb-bp1b6c719dfa08exfuca5	Optional. The ID of the SLB instance to be queried. You can enter up to 10 IDs. Multiple IDs must be separated by commas (,).

Parameter	Type	Required?	Example value	Description
LoadBalancerName	String	No	abc1	Optional. The name of the SLB instance to be queried. You can enter up to 10 names. Multiple names must be separated by commas (,).
LoadBalancerStatus	String	No	active	Optional. The status of the SLB instance to be queried. - inactive: When an SLB instance is in the inactive state, the listeners of the instance do not distribute traffic. - active: After an instance is created, it is in the active state. - locked: The SLB instance is in the locked state.
MasterZoneId	String	No	cn-hangzhou-b	Optional. The primary zone ID of the SLB instance to be queried.
NetworkType	String	No	vpc	Optional. The network type of an intranet SLB instance. Valid values: vpc classic - vpc: Indicates a network of the VPC type. - classic: Indicates a classic network.
PageNumber	Integer	No	1	Optional. The page number in the case of paging query.
PageSize	Integer	No	50	Optional. The maximum number of entries on a page.

Parameter	Type	Required?	Example value	Description
PayType	String	No	PayOnDemand	Optional. The billing method of the SLB instance to be queried. Valid values: PayOnDemand PrePay
ResourceGroupId	String	No	rg-acfmxb4p h6aiy	Optional. The ID of the enterprise resource group.
ServerId	String	No	vm-231	Optional. The ID of the backend server (ECS instance).
ServerIntranetAddresses	String	No	10.80.102.20	Optional. The intranet IP address of the backend server (ECS instance). You can enter multiple values . Separate multiple values by using commas (,).
SlaveZoneId	String	No	cn-hangzhou-d	Optional. The secondary zone ID of the SLB instance to be queried. Currently, multi-zone is not supported for users of Alibaba Cloud' s financial service solutions.

Parameter	Type	Required ?	Example value	Description
Tags	String	No	<code>{"tagKey": "Key1", "tagValue": "Value1"}</code>	Optional. The list of tags associated with the SLB instance to be queried. It is a dictionary that is serialized into JSON and contains TagKey and TagValue pairs. For each request, the list can contain up to 10 tags.
VSwitchId	String	No	<code>vsw-bp12mw1f8k3jgygk9bmlj</code>	Optional. The VSwitch ID of the SLB instance to be queried.
VpcId	String	No	<code>vpc-bp1aevy8sofi8mh1qc5cm</code>	Optional. The VPC ID of the SLB instance to be queried.

Response parameters

Parameter	Type	Example value	Description
LoadBalancers			A list of SLB instances in array format.
└ LoadBalancerId	String	<code>282b00102ac-cn-east-hangzhou-01</code>	The ID of the SLB instance.
└ LoadBalancerName	String	<code>def</code>	The name of the SLB instance.

Parameter	Type	Example value	Description
└ LoadBalancerStatus	String	active	The status of the SLB instance. - inactive: When an SLB instance is in the inactive state, the listeners of the instance do not distribute traffic. - active: After an instance is created, it is in the active state. - locked: The SLB instance is in the locked state.
└ Address	String	100.98.28.55	The IP address of the SLB instance.
└ RegionId	String	cn-hangzhou	The ID of the region to which the SLB instance belongs.
└ RegionIdAlias	String	cn-hangzhou-d	The alias of the region to which the SLB instance belongs.
└ AddressType	String	intranet	The network type of the SLB instance.
└ VSwitchId	String	vsw-255ecrwq5	The ID of the VSwitch to which an intranet SLB instance belongs.
└ VpcId	String	vpc-25dvzy9f8	The ID of the VPC to which an intranet SLB instance belongs.
└ NetworkType	String	vpc	The network type of an intranet SLB instance. Valid values: - vpc: Indicates a network of the VPC type. - classic: Indicates a classic network.
└ CreateTime	String	2017-08-31T02:49:05Z	The time when the SLB instance is created.

Parameter	Type	Example value	Description
<code>MasterZoneId</code>	String	cn-hangzhou-b	The ID of the primary zone.
<code>SlaveZoneId</code>	String	cn-hangzhou-d	The ID of the secondary zone.
<code>AddressIPVersion</code>	String	ipv4	The IP version, which can be ipv4 or ipv6.
<code>CreateTimeStamp</code>	Long	1504147745000	The timestamp indicating when the SLB instance is created.
<code>InternetChargeType</code>	String	paybybandwidth	The billing method of an Internet SLB instance. Valid values: paybytraffic: billed based on traffic (default value)  Note: If the value of PayType is PrePay, only bandwidth-based billing is supported.
<code>PayType</code>	String	PrePay	The billing method of the SLB instance. Valid values: PayOnDemand PrePay.
<code>ResourceGroupId</code>	String	rg-atstuj3rtoptyui	The ID of the enterprise resource group.
<code>PageNumber</code>	Integer	1	The page number of the SLB instance list.
<code>PageSize</code>	Integer	50	The number of entries on the current page.
<code>RequestId</code>	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The request ID.

Parameter	Type	Example value	Description
TotalCount	Integer	1	The total number of instances that meet the filter conditions.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = DescribeLoadBalancers
& RegionId = cn - hangzhou
&< CommonParameters >
```

Response examples

XML format

```
< DescribeLoadBalancerResponse >
  < PageNumber > 1 </ PageNumber >
  < TotalCount > 1 </ TotalCount >
  < PageSize > 50 </ PageSize >
  < LoadBalancers >
    < LoadBalancer >
      < CreateTime Stamp > 1541679713 000 </ CreateTime Stamp >
      < LoadBalancerName > abc1 </ LoadBalancerName >
      < RegionIdAlias > cn - hangzhou </ RegionIdAlias >
      < ResourceGroupId > rg - acfmazb4p h6aiy </ ResourceGroupId >
      < AddressIPVersion > ipv4 </ AddressIPVersion >
      < LoadBalancerId > lb - bp1b6c719d fa08exfuca 5 </ LoadBalancerId >
      < VSwitchId > vsw - bp12mw1f8k 3jgygk9bml j </ VSwitchId >
      < InternetChargeType > 4 </ InternetChargeType >
      < VpcId > vpc - bp1aevy8so fi8mh1qc5c m </ VpcId >
      < SlaveZoneId > cn - hangzhou - d </ SlaveZoneId >
      < NetworkType > vpc </ NetworkType >
      < MasterZoneId > cn - hangzhou - b </ MasterZoneId >
      < CreateTime > 2018 - 11 - 08T20 : 21Z </ CreateTime >
      < Address > 192 . 168 . 0 . 6 </ Address >
      < RegionId > cn - hangzhou </ RegionId >
      < AddressType > intranet </ AddressType >
      < PayType > PayOnDemand </ PayType >
      < LoadBalancerStatus > active </ LoadBalancerStatus >
    </ LoadBalancer >
  </ LoadBalancers >
  < RequestId > 1C7445CB - C21C - 4C19 - 9A3C - 65C3190D19 44 </ RequestId >
</ DescribeLoadBalancerResponse >
```

JSON format

```
{
  " PageNumber ": 1 ,
  " TotalCount ": 1 ,
  " PageSize ": 50 ,
  " RequestId ":" 1C7445CB - C21C - 4C19 - 9A3C - 65C3190D19 44 ",
```

```
" LoadBalancers ":{
  " LoadBalancer ":[
    {
      " CreateTime Stamp ": 1541679713 000 ,
      " LoadBalancerName ": " abc1 ",
      " RegionIdAlias ": " cn - hangzhou ",
      " ResourceGroupId ": " rg - acfmxyz4p h6aiy ",
      " AddressIPVersion ": " ipv4 ",
      " LoadBalancerId ": " lb - bp1b6c719d fa08exfuca 5 ",
      " VSwitchId ": " vsw - bp12mw1f8k 3jgygk9bml j ",
      " InternetChargeType ": " 4 ",
      " VpcId ": " vpc - bp1aevy8so fi8mh1qc5c m ",
      " SlaveZoneId ": " cn - hangzhou - d ",
      " NetworkType ": " vpc ",
      " MasterZoneId ": " cn - hangzhou - b ",
      " RegionId ": " cn - hangzhou ",
      " Address ": " 192 . 168 . 0 . 6 ",
      " CreateTime ": " 2018 - 11 - 08T20 : 21Z ",
      " AddressType ": " intranet ",
      " PayType ": " PayOnDemand ",
      " LoadBalancerStatus ": " active "
    }
  ]
}
```

Error codes

See [common error codes](#).

6.7 DescribeLoadBalancerAttribute

Queries the details of an SLB instance.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeLoadBalancerAttribute	The name of this action. Value: DescribeLoadBalancerAttribute
LoadBalancerId	String	Yes	lb-bp1b6c719d fa08exfuca5	The ID of the SLB instance that you want to query.

Parameter	Type	Required?	Example value	Description
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs. To query the region ID, refer to the list of regions and zones or call DescribeRegions .

Response parameters

Parameter	Type	Example value	Description
LoadBalancerId	String	139a00604ad-cn-east-hangzhou-01	The ID of the SLB instance.
RegionId	String	cn-hangzhou	The ID of the region to which the SLB instance belongs.
RegionIdAlias	String	cn-hangzhou	The alias of the region to which the SLB instance belongs.
LoadBalancerName	String	abc	The name of the SLB instance.
LoadBalancerStatus	String	active	The status of the SLB instance. - inactive: When the SLB instance is inactive, the listeners of the instance do not distribute traffic. - active: After an instance is created, it is in the active state by default. - Locked: The payment of the SLB instance is overdue or the instance is locked by Alibaba Cloud.
Address	String	42.250.6.36	The IP address of the SLB instance.

Parameter	Type	Example value	Description
AddressType	String	internet	The address type of the SLB instance.
NetworkType	String	vpc	The network type of the SLB instance.
VpcId	String	vpc-25dvzy9f8	The ID of the VPC to which an intranet SLB instance belongs.
Bandwidth	Integer	5	The peak bandwidth of an Internet instance that is billed based on bandwidth.
CreateTime	String	2017-08-31T02:49:05Z	The time when the SLB instance is created.
ListenerPorts		"ListenerPort": [80, 443]	A list of frontend ports used by the SLB instance.
ListenerPortsAndProtocol			A list of the frontend ports and protocols used by the SLB instance.
↳ListenerPort	Integer	443	The frontend port used by the SLB instance.
↳ListenerProtocol	String	https	The frontend protocol used by the SLB instance.
↳Description	String	Listener	A description of the listening port and protocol used by the SLB instance.
↳ForwardPort	Integer	80	The destination listening port to which requests are forwarded. It is an existing HTTPS listening port.

Parameter	Type	Example value	Description
ListenerForward	String	yes	Indicates whether redirection is enabled.
BackendServers			The list of backend servers added to the SLB instance.
ServerId	String	vm-234	The ID of the backend server (ECS instance).
Weight	Integer	90	The weight of the backend server.
Description	String	Description	A description of the backend server.
Type	String	ecs	The backend server type.
MasterZoneId	String	cn-hangzhou-b	The primary zone ID of the SLB instance.
AddressIPVersion	String	ipv4	The IP version.
AutoReleaseTime	Long	1513947075	The specified release time.
CreateTimeStamp	Long	1504147745000	The timestamp indicating when the SLB instance is created.
DeleteProtection	String	off	Indicates whether deletion protection is enabled. Valid values: on off
EndTime	String	2999-09-08T16:00:00Z	The end time of the SLB instance.
EndTimeStamp	Long	32493801600000	The timestamp indicating when the SLB instance ends.

Parameter	Type	Example value	Description
InternetChargeType	String	paybybandwidth	The billing method of an Internet SLB instance. Valid values: paybybandwidth paybytraffic
ListenerPortsAndProtocol			A list of the listening ports and protocols used by the SLB instance.
[⌞] ListenerPort	Integer	443	The frontend port used by the SLB instance.
[⌞] ListenerProtocol	String	http	The frontend protocol used by the SLB instance.
LoadBalancerSpec	String	slb.s2.small	The specification of the SLB instance.
PayType	String	PrePay	The billing method of the SLB instance. Valid values: PayOnDemand PrePay
RenewalCycleUnit	String	Month	The automatic renewal cycle. It applies only when the value of RenewalStatus is AutoRenewal. Valid values: Year Month (default value)
RenewalDuration	Integer	1	The automatic renewal period of validity. It applies only when the value of RenewalStatus is AutoRenewal. - Valid values are 1, 2, and 3 when the value of PeriodUnit is Year. - Valid values are 1, 2, 3, and 6 when the value of PeriodUnit is Month.

Parameter	Type	Example value	Description
RenewalStatus	String	AutoRenewal	The renewal mode. Valid values: - AutoRenewal: Automatic renewal is enabled. - Normal: You can only renew the SLB instance manually. - NotRenewal: Renewal is stopped for the instance. If this value is returned, Alibaba Cloud stops sending notifications about the impending instance expiration, and only sends one reminder on the third day before the instance expires.
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The request ID.
ResourceGroupId	String	rg-atstuj3rtoptyui	The ID of the enterprise resource group to which the SLB instance belongs.
SlaveZoneId	String	cn-hangzhou-d	The secondary zone ID of the SLB instance.
VSwitchId	String	vsw-255ecrwq5	The ID of the VSwitch to which an intranet SLB instance belongs.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = DescribeLoadBalancerAttribute
& LoadBalancerId = lb-bp1b6c719d-fa08exfuca-5
&< CommonParameters >
```

Response examples

XML format

```
< DescribeLoadBalancerAttributeResponse >
  < CreateTimeStamp > 1541679713000 </ CreateTimeStamp >
```

```

< RegionIdAlias > cn - hangzhou </ RegionIdAlias >
< BackendServers >
  < BackendServer >
    < ServerId > i - bp1c3zrr37 ablp8ujo7v </ ServerId >
    < Weight > 100 </ Weight >
    < Type > ecs </ Type >
  </ BackendServer >
</ BackendServers >
< HasReserveInfo > false </ HasReserveInfo >
< ListenerPorts >
< InternetChargeType > paybytraffic </ InternetChargeType >
< VSwitchId > vsw - bp12mw1f8k 3jgygk9bml j </ VSwitchId >
< VpcId > vpc - bp1aevy8so fi8mh1qc5c m </ VpcId >
< SlaveZoneId > cn - hangzhou - d </ SlaveZoneId >
< LoadBalancerSpec > slb . s2 . small </ LoadBalancerSpec >
< NetworkType > vpc </ NetworkType >
< ListenerPortsAndProtocol >
< PayType > PayOnDemand </ PayType >
< Bandwidth > 5120 </ Bandwidth >
< LoadBalancerName > abc1 </ LoadBalancerName >
< ResourceGroupId > rg - acfmxazb4p h6aiy </ ResourceGroupId >
< AddressIPVersion > ipv4 </ AddressIPVersion >
< LoadBalancerId > lb - bp1b6c719d fa08exfuca 5 </ LoadBalancerId >
< EndTimeStamp > 3249380160 0000 </ EndTimeStamp >
< MasterZoneId > cn - hangzhou - b </ MasterZoneId >
< ListenerPortsAndProtocol >
< Address > 192 . 168 . 0 . 6 </ Address >
< RegionId > cn - hangzhou </ RegionId >
< RequestId > 35D745B3 - 1567 - 4855 - 9EF1 - F5CED3C167 0C </
RequestId >
< CreateTime > 2018 - 11 - 08T12 : 21 : 53Z </ CreateTime >
< AddressType > intranet </ AddressType >
< EndTime > 2999 - 09 - 08T16 : 00 : 00Z </ EndTime >
< LoadBalancerStatus > active </ LoadBalancerStatus >
</ DescribeLoadBalancerAttributeResponse >

```

JSON format

```

{
  "CreateTimeStamp": 1541679713 000 ,
  "RegionIdAlias": " cn - hangzhou ",
  "HasReserveInfo": " false ",
  "BackendServers": {
    "BackendServer": [
      {
        "ServerId": " i - bp1c3zrr37 ablp8ujo7v ",
        "Weight": 100 ,
        "Type": " ecs "
      }
    ]
  },
  "ListenerPorts": {
    "ListenerPort": []
  },
  "VSwitchId": " vsw - bp12mw1f8k 3jgygk9bml j ",
  "InternetChargeType": " paybytraffic ",
  "VpcId": " vpc - bp1aevy8so fi8mh1qc5c m ",
  "SlaveZoneId": " cn - hangzhou - d ",
  "NetworkType": " vpc ",
  "LoadBalancerSpec": " slb . s2 . small ",
  "ListenerPortsAndProtocol": {
    "ListenerPortAndProtocol": []
  }
}

```

```

},
" PayType ":" PayOnDemand ",
" Bandwidth ": 5120 ,
" LoadBalancerName ":" abc1 ",
" ResourceGroupId ":" rg - acfmxazb4p h6aiy ",
" AddressIPVersion ":" ipv4 ",
" LoadBalancerId ":" lb - bp1b6c719d fa08exfuca 5 ",
" EndTimeStamp ": 3249380160 0000 ,
" MasterZoneId ":" cn - hangzhou - b ",
" ListenerPortsAndProtocol ":{
  " ListenerPortAndProtocol ":[]
},
" Address ":" 192 . 168 . 0 . 6 ",
" RegionId ":" cn - hangzhou ",
" RequestId ":" 35D745B3 - 1567 - 4855 - 9EF1 - F5CED3C167 0C ",
" CreateTime ":" 2018 - 11 - 08T12 : 21 : 53Z ",
" EndTime ":" 2999 - 09 - 08T16 : 00 : 00Z ",
" AddressType ":" intranet ",
" LoadBalancerStatus ":" active "
}

```

Error codes

See [common error codes](#).

6.8 DescribeRegions

Queries available regions.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeRegions	The name of this action. Value: DescribeRegions
RegionId	String	Yes	cn-hangzhou-d	The ID of the region.
AcceptLanguage	String	No	zh-CN	Optional. The supported languages. Valid values: - zh-CN: Chinese - en-US: English - ja: Japanese

Response parameters

Parameter	Type	Example value	Description
Regions			A list of regions.
└RegionId	String	cn-beijing	The ID of the region.
└LocalName	String	China (Beijing)	The name of the region.
└RegionEndpoint	String	slb.aliyuncs.com	The endpoint address of the region.
RequestId	String	1651FBB6-4FBF-49FF-A9F5-DF5D696C7EC6	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = DescribeRegions
&< CommonParameters >
```

Response examples

XML format

```
< DescribeRegionsResponse >
  < RequestId > 3CCA93B7 - 9590 - 42D6 - 8118 - 9CE3383558 A9 </
  RequestId >
  < Regions >
    < Region >
      < RegionId > ap - southeast - 1 </ RegionId >
      < RegionEndpoint > slb . aliyuncs . com </ RegionEndpoint >
      < LocalName > Singapore </ LocalName >
    </ Region >
    < Region >
      < RegionId > eu - central - 1 </ RegionId >
      < RegionEndpoint > slb . eu - central - 1 . aliyuncs . com </
      RegionEndpoint >
      < LocalName > Germany ( Frankfurt )</ LocalName >
    </ Region >
    < Region >
      < RegionId > ap - southeast - 5 </ RegionId >
      < RegionEndpoint > slb . ap - southeast - 5 . aliyuncs . com
    </ RegionEndpoint >
      < LocalName > Indonesia ( Jakarta )</ LocalName >
    </ Region >
    < Region >
      < RegionId > cn - qingdao </ RegionId >
      < RegionEndpoint > slb . aliyuncs . com </ RegionEndpoint >
      < LocalName > China ( Qingdao )</ LocalName >
```

```

</ Region >
< Region >
  < RegionId > us - east - 1 </ RegionId >
  < RegionEndpoint > slb . aliyuncs . com </ RegionEndpoint >
  < LocalName > US ( Virginia )</ LocalName >
</ Region >
< Region >
  < RegionId > ap - south - 1 </ RegionId >
  < RegionEndpoint > slb . ap - south - 1 . aliyuncs . com </
RegionEndpoint >
  < LocalName > India ( Mumbai )</ LocalName >
</ Region >
< Region >
  < RegionId > cn - beijing </ RegionId >
  < RegionEndpoint > slb . aliyuncs . com </ RegionEndpoint >
  < LocalName > China ( Beijing )</ LocalName >
</ Region >
< Region >
  < RegionId > cn - shanghai </ RegionId >
  < RegionEndpoint > slb . aliyuncs . com </ RegionEndpoint >
  < LocalName > China ( Shanghai )</ LocalName >
</ Region >
< Region >
  < RegionId > ap - northeast - 1 </ RegionId >
  < RegionEndpoint > slb . ap - northeast - 1 . aliyuncs . com
</ RegionEndpoint >
  < LocalName > Japan ( Tokyo )</ LocalName >
</ Region >
< Region >
  < RegionId > cn - huhehaote </ RegionId >
  < RegionEndpoint > slb . cn - huhehaote . aliyuncs . com </
RegionEndpoint >
  < LocalName > China ( Hohhot )</ LocalName >
</ Region >
< Region >
  < RegionId > cn - shenzhen </ RegionId >
  < RegionEndpoint > slb . aliyuncs . com </ RegionEndpoint >
  < LocalName > China ( Shenzhen )</ LocalName >
</ Region >
< Region >
  < RegionId > ap - southeast - 2 </ RegionId >
  < RegionEndpoint > slb . ap - southeast - 2 . aliyuncs . com
</ RegionEndpoint >
  < LocalName > Australia ( Sydney )</ LocalName >
</ Region >
< Region >
  < RegionId > us - west - 1 </ RegionId >
  < RegionEndpoint > slb . aliyuncs . com </ RegionEndpoint >
  < LocalName > US ( Silicon Valley )</ LocalName >
</ Region >
< Region >
  < RegionId > eu - west - 1 </ RegionId >
  < RegionEndpoint > slb . eu - west - 1 . aliyuncs . com </
RegionEndpoint >
  < LocalName > UK ( London )</ LocalName >
</ Region >
< Region >
  < RegionId > me - east - 1 </ RegionId >
  < RegionEndpoint > slb . me - east - 1 . aliyuncs . com </
RegionEndpoint >
  < LocalName > UAE ( Dubai )</ LocalName >
</ Region >
< Region >
  < RegionId > cn - zhangjiako u </ RegionId >

```

```

    < RegionEndpoint > slb . cn - zhangjiakou . aliyuncs . com
  </ RegionEndpoint >
  < LocalName > China ( Zhangjiakou )</ LocalName >
</ Region >
< Region >
  < RegionId > cn - hangzhou </ RegionId >
  < RegionEndpoint > slb . aliyuncs . com </ RegionEndpoint >
  < LocalName > China ( Hangzhou )</ LocalName >
</ Region >
< Region >
  < RegionId > ap - southeast - 3 </ RegionId >
  < RegionEndpoint > slb . ap - southeast - 3 . aliyuncs . com
</ RegionEndpoint >
  < LocalName > Malaysia ( Kuala Lumpur )</ LocalName >
</ Region >
</ Regions >
</ DescribeRegionsResponse >

```

JSON format

```

{
  "RequestId ":" 3CCA93B7 - 9590 - 42D6 - 8118 - 9CE3383558 A9 ",
  "Regions ":{
    "Region ":[
      {
        "RegionId ":" ap - southeast - 1 ",
        "RegionEndpoint ":" slb . aliyuncs . com ",
        "LocalName ":" Singapore "
      },
      {
        "RegionId ":" eu - central - 1 ",
        "RegionEndpoint ":" slb . eu - central - 1 . aliyuncs . com ",
        "LocalName ":" Germany ( Frankfurt )"
      },
      {
        "RegionId ":" ap - southeast - 5 ",
        "RegionEndpoint ":" slb . ap - southeast - 5 . aliyuncs . com
      },
      {
        "LocalName ":" Indonesia ( Jakarta )"
      },
      {
        "RegionId ":" cn - qingdao ",
        "RegionEndpoint ":" slb . aliyuncs . com ",
        "LocalName ":" China ( Qingdao )"
      },
      {
        "RegionId ":" us - east - 1 ",
        "RegionEndpoint ":" slb . aliyuncs . com ",
        "LocalName ":" US ( Virginia )"
      },
      {
        "RegionId ":" ap - south - 1 ",
        "RegionEndpoint ":" slb . ap - south - 1 . aliyuncs . com ",
        "LocalName ":" India ( Mumbai )"
      },
      {
        "RegionId ":" cn - beijing ",
        "RegionEndpoint ":" slb . aliyuncs . com ",
        "LocalName ":" China ( Beijing )"
      },
      {
        "RegionId ":" cn - shanghai ",
        "RegionEndpoint ":" slb . aliyuncs . com ",

```

```

    " LocalName ":" China  ( Shanghai )"
  },
  {
    " RegionId ":" ap - northeast - 1 ",
    " RegionEndpoint ":" slb . ap - northeast - 1 . aliyuncs . com
",
    " LocalName ":" Japan  ( Tokyo )"
  },
  {
    " RegionId ":" cn - huhehaote ",
    " RegionEndpoint ":" slb . cn - huhehaote . aliyuncs . com ",
    " LocalName ":" China  ( Hohhot )"
  },
  {
    " RegionId ":" cn - shenzhen ",
    " RegionEndpoint ":" slb . aliyuncs . com ",
    " LocalName ":" China  ( Shenzhen )"
  },
  {
    " RegionId ":" ap - southeast - 2 ",
    " RegionEndpoint ":" slb . ap - southeast - 2 . aliyuncs . com
",
    " LocalName ":" Australia  ( Sydney )"
  },
  {
    " RegionId ":" us - west - 1 ",
    " RegionEndpoint ":" slb . aliyuncs . com ",
    " LocalName ":" US  ( Silicon Valley )"
  },
  {
    " RegionId ":" eu - west - 1 ",
    " RegionEndpoint ":" slb . eu - west - 1 . aliyuncs . com ",
    " LocalName ":" UK  ( London )"
  },
  {
    " RegionId ":" me - east - 1 ",
    " RegionEndpoint ":" slb . me - east - 1 . aliyuncs . com ",
    " LocalName ":" UAE  ( Dubai )"
  },
  {
    " RegionId ":" cn - zhangjiako u ",
    " RegionEndpoint ":" slb . cn - zhangjiako u . aliyuncs . com
",
    " LocalName ":" China  ( Zhangjiako u )"
  },
  {
    " RegionId ":" cn - hangzhou ",
    " RegionEndpoint ":" slb . aliyuncs . com ",
    " LocalName ":" China  ( Hangzhou )"
  },
  {
    " RegionId ":" ap - southeast - 3 ",
    " RegionEndpoint ":" slb . ap - southeast - 3 . aliyuncs . com
",
    " LocalName ":" Malaysia  ( Kuala Lumpur )"
  }
]
}
}

```

Error codes

HTTP status code	Error code	Error message	Description
400	InvalidParameter	Illegal parameter, query. namespace is not auth.	The query. namespace parameter is not authorized.

See [common error codes](#).

6.9 DescribeZones

Queries the zones in a region.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeZones	The name of this action. Value: DescribeZones
RegionId	String	Yes	cn-hangzhou-d	The ID of the region.

Response parameters

Parameter	Type	Example value	Description
Zones			The list of available zones.
└─ZoneId	String	cn-hangzhou-b	The ID of the zone.
└─LocalName	String	China East 1 Zone B	The name of the zone.
└─SlaveZones			The list of secondary zones.

Parameter	Type	Example value	Description
<code>ZoneId</code>	String	cn-hangzhou-g	The ID of the secondary zone.
<code>LocalName</code>	String	East China 1 Zone G	The name of the secondary zone.
<code>RequestId</code>	String	A48D35FF-440A -4BC0-A4A2- A9BF69B7E43A	The ID of the request.

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = DescribeZones
& RegionId = cn - hangzhou
& < CommonParameters >
```

Response examples

XML format

```
< DescribeZonesResponse >
  < RequestId > 3FF183FF - F4AA - 40E8 - 8B5D - 90788C6799 C2 </
  RequestId >
  < Zones >
    < Zone >
      < SlaveZones >
        < SlaveZone >
          < ZoneId > cn - hangzhou - g </ ZoneId >
          < LocalName > China East 1 Zone G </ LocalName >
        </ SlaveZone >
        < SlaveZone >
          < ZoneId > cn - hangzhou - d </ ZoneId >
          < LocalName > China East 1 Zone D </ LocalName >
        </ SlaveZone >
      </ SlaveZones >
      < ZoneId > cn - hangzhou - b </ ZoneId >
      < LocalName > China East 1 Zone B </ LocalName >
    </ Zone >
    < Zone >
      < SlaveZones >
        < SlaveZone >
          < ZoneId > cn - hangzhou - e </ ZoneId >
          < LocalName > China East 1 Zone E </ LocalName >
        </ SlaveZone >
      </ SlaveZones >
      < ZoneId > cn - hangzhou - d </ ZoneId >
      < LocalName > China East 1 Zone D </ LocalName >
    </ Zone >
    < Zone >
      < SlaveZones >
        < SlaveZone >
          < ZoneId > cn - hangzhou - f </ ZoneId >
          < LocalName > China East 1 Zone F </ LocalName >
```

```

    </ SlaveZone >
    < SlaveZone >
      < ZoneId > cn - hangzhou - d </ ZoneId >
      < LocalName > China    East    1    Zone    D </ LocalName >
    </ SlaveZone >
  </ SlaveZones >
  < ZoneId > cn - hangzhou - e </ ZoneId >
  < LocalName > China    East    1    Zone    E </ LocalName >
</ Zone >
< Zone >
  < SlaveZones >
    < SlaveZone >
      < ZoneId > cn - hangzhou - e </ ZoneId >
      < LocalName > China    East    1    Zone    E </ LocalName >
    </ SlaveZone >
  </ SlaveZones >
  < ZoneId > cn - hangzhou - f </ ZoneId >
  < LocalName > China    East    1    Zone    F </ LocalName >
</ Zone >
< Zone >
  < SlaveZones >
    < SlaveZone >
      < ZoneId > cn - hangzhou - h </ ZoneId >
      < LocalName > China    East    1    Zone    H </ LocalName >
    </ SlaveZone >
    < SlaveZone >
      < ZoneId > cn - hangzhou - b </ ZoneId >
      < LocalName > China    East    1    Zone    B </ LocalName >
    </ SlaveZone >
  </ SlaveZones >
  < ZoneId > cn - hangzhou - g </ ZoneId >
  < LocalName > China    East    1    Zone    G </ LocalName >
</ Zone >
< Zone >
  < SlaveZones >
    < SlaveZone >
      < ZoneId > cn - hangzhou - g </ ZoneId >
      < LocalName > China    East    1    Zone    G </ LocalName >
    </ SlaveZone >
  </ SlaveZones >
  < ZoneId > cn - hangzhou - h </ ZoneId >
  < LocalName > China    East    1    Zone    H </ LocalName >
</ Zone >
</ Zones >
</ DescribeZonesResponse >

```

JSON format

```

{
  "RequestId ":" 3FF183FF - F4AA - 40E8 - 8B5D - 90788C6799 C2 ",
  "Zones ":{
    "Zone ":[
      {
        "ZoneId ":" cn - hangzhou - b ",
        "SlaveZones ":{
          "SlaveZone ":[
            {
              "ZoneId ":" cn - hangzhou - g ",
              "LocalName ":" China    East    1    Zone    G "
            },
            {
              "ZoneId ":" cn - hangzhou - d ",
              "LocalName ":" China    East    1    Zone    D "
            }
          ]
        }
      }
    ]
  }
}

```

```

    }
  ]
},
" LocalName ":" China    East    1    Zone    B "
},
{
  " ZoneId ":" cn - hangzhou - d ",
  " SlaveZones ":{
    " SlaveZone ":[
      {
        " ZoneId ":" cn - hangzhou - e ",
        " LocalName ":" China    East    1    Zone    E "
      }
    ]
  },
  " LocalName ":" China    East    1    Zone    D "
},
{
  " ZoneId ":" cn - hangzhou - e ",
  " SlaveZones ":{
    " SlaveZone ":[
      {
        " ZoneId ":" cn - hangzhou - f ",
        " LocalName ":" China    East    1    Zone    F "
      },
      {
        " ZoneId ":" cn - hangzhou - d ",
        " LocalName ":" China    East    1    Zone    D "
      }
    ]
  },
  " LocalName ":" China    East    1    Zone    E "
},
{
  " ZoneId ":" cn - hangzhou - f ",
  " SlaveZones ":{
    " SlaveZone ":[
      {
        " ZoneId ":" cn - hangzhou - e ",
        " LocalName ":" China    East    1    Zone    E "
      }
    ]
  },
  " LocalName ":" China    East    1    Zone    F "
},
{
  " ZoneId ":" cn - hangzhou - g ",
  " SlaveZones ":{
    " SlaveZone ":[
      {
        " ZoneId ":" cn - hangzhou - h ",
        " LocalName ":" China    East    1    Zone    H "
      },
      {
        " ZoneId ":" cn - hangzhou - b ",
        " LocalName ":" China    East    1    Zone    B "
      }
    ]
  },
  " LocalName ":" China    East    1    Zone    G "
},
{
  " ZoneId ":" cn - hangzhou - h ",
  " SlaveZones ":{

```

```
" SlaveZone ":[
  {
    " ZoneId ":" cn - hangzhou - g ",
    " LocalName ":" China    East    1    Zone    G "
  }
],
" LocalName ":" China    East    1    Zone    H "
```

Error codes

HTTP status code	Error code	Error message	Description
400	InvalidParameter	Illegal parameter, query.namespace is not auth.	The query.namespace parameter is invalid.

[See common error codes.](#)

6.10 ModifyLoadBalancerInstanceSpec

Modifies the specification of an SLB instance.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	ModifyLoadBalancerInstanceSpec	The name of this action. Value:ModifyLoadBalancerInstanceSpec
LoadBalancerId	String	Yes	lb-bp1b6c719dfa08exfuca5	The ID of the SLB instance.

Parameter	Type	Required?	Example value	Description
LoadBalancerSpec	String	Yes	slb.s2.small	The specification of the SLB instance. Valid values: · slb.s1.small · slb.s2.small · slb.s2.medium · slb.s3.small · slb.s3.medium · slb.s3.large Available specifications may vary according to the region. .  Note: When you change a shared-performance instance to a guaranteed-performance instance, a brief disconnection of service may occur for 10 to 30 seconds. We recommend that you perform this operation during off-peak traffic hours, or use GSLB to schedule the service to other SLB instances first.
RegionId	String	Yes	cn-hangzhou	The region to which the SLB instance belongs. To query the region ID, refer to the list of regions and zones or call the DescribeRegions API.

Parameter	Type	Required ?	Example value	Description
AutoPay	Boolean	No	true	Indicates whether to pay automatically. · If the value is true, the order is automatically paid. · If the value is false, you need to pay the order in the Billing console.  Note: This parameter only applies to Subscription instances.

Response parameters

Parameter	Type	Example value	Description
OrderId	Long	201429619788910	The order ID of a Subscription instance.
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = ModifyLoad BalancerIn
stanceSpec
& LoadBalanc erId = lb - bp1b6c719d fa08exfuca 5
& LoadBalanc erSpec = slb . s2 . small
&< CommonPara meters >
```

Normal response examples

XML format

```
< ModifyLoad BalancerIn stanceSpec Response >
  < RequestId > D456A34A - 6E40 - 4379 - 8DAF - 9175760FE2 15 </
  RequestId >
```

```
</ ModifyLoad BalancerIn stanceSpec Response >
```

JSON format

```
{
  "RequestId ":" D456A34A - 6E40 - 4379 - 8DAF - 9175760FE2 15 "
}
```

Error response example**JSON format**

```
{
  " Message ":" The specified parameter is not valid .",
  " RequestId ":" 0669D684 - 69D8 - 408E - A4FA - B9011E0F4E 66 ",
  " HostId ":" slb - pop . aliyuncs . com ",
  " Code ":" InvalidPar ameter "
}
```

Error codes

HttpCode	Error code	Error message	Description
400	ModifySpec NotAllowed	LoadBalancerSpec not allowed for this instance	This specification is not supported by this instance .
400	ModifySpec NotAllowed	LoadBalancerSpec not allowed for this instance	This specification is not supported by this instance .
400	Operation. NotAllowed	Operation Denied. Unfinished order exists.	The operation is not allowed. An unfinished purchase order exists.
400	Operation. NotAllowed	Operation Denied. Unfinished purchase exists.	The operation is not allowed. An unfinished purchase order exists.
400	Operation. NotAllowed	Operation Denied. Prepay instance only permitted to increase loadBalanc erSpec.	The operation is not allowed. An unfinished purchase order exists.
400	Operation. NotAllowed	Operation Denied. The Purchase status of the instance is not valid.	The operation is not allowed. An unfinished purchase order exists.

[See common error codes.](#)

7 UDP listeners

7.1 CreateLoadBalancerUDPListener

Creates a UDP listener.

Obtaining real IP addresses is not supported by classic network SLB instances when you use the UDP protocol.



Note:

A newly created listener is in the Stopped state. After a listener is created, you need to call `StartLoadBalancerListener` to start the listener.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	CreateLoadBalancerUDPListener	The name of this action. Value: CreateLoadBalancerUDPListener
Bandwidth	Integer	Yes	34	The peak bandwidth of the listener to be created. Valid values: -1 1 to 5120. -1: Setting the peak bandwidth to -1 for an Internet instance that is billed by traffic results in unlimited bandwidth.
ListenerPort	Integer	Yes	80	The frontend port configured in the SLB instance. Value range: 1 to 65535

Parameter	Type	Required?	Example value	Description
LoadBalancerId	String	Yes	lb-bp1ygod3yctvgly7wezms	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The region ID of the SLB instance.
AclId	String	No	123	Optional. The ID of the access control list associated with the listener to be created. If the value of the AclStatus parameter is on, this parameter is required.
AclStatus	String	No	off	Optional. Indicates whether to enable access control. Valid values: on off. Default value: off

Parameter	Type	Required?	Example value	Description
AclType	String	No	white	Optional. The access control type: · white: Indicates a whitelist. Only requests from IP addresses or CIDR blocks in the selected access control lists are forwarded. This applies to scenarios in which an application only allows access from specific IP addresses. Enabling a whitelist poses some risks to your services. After a whitelist is enabled, only the IP addresses in the list can access the listener. If you enable a whitelist without adding any IP addresses in the list, no requests are forwarded. · black: Indicates a blacklist. Requests from IP addresses or CIDR blocks in the selected access control lists are not forwarded (that is, they are blocked). This applies to scenarios in which an application only denies access from specific IP addresses. If you enable a blacklist without adding any IP addresses in the list, all requests are forwarded.

Parameter	Type	Required?	Example value	Description
BackendServerPort	Integer	No	80	Optional. The backend port used by the SLB instance. Value range: 1 to 65535. If the VServerGroupId parameter is not specified, this parameter is required.
Description	String	No	test	Optional. The description of the listener to be created. The description must be 1 to 80 characters in length. It can contain letters, numbers, hyphens (-), slashes (/), periods (.), and underscores (_). Chinese characters are supported.
HealthCheckConnectPort	Integer	No	80	Optional. The port used for health checks. Value range: 1 to 65535 If you do not set this parameter, the backend service port (BackendServerPort) is used.

Parameter	Type	Required?	Example value	Description
HealthCheckConnectTimeout	Integer	No	100	Optional. The length of time to wait for the response from the health check. If the backend ECS instance does not send a correct response within the specified time, the health check fails. Value range: 1 to 300. Unit: seconds
HealthyThreshold	Integer	No	4	Optional. The number of consecutive successes of health checks before a backend server is declared as healthy (that is, changes from failure to success state). Value range: 2 to 10
MasterSlaveServerGroupId	String	No	rsp-0bfucwuotx	The ID of the active/standby server group.  Note: You cannot set both the VServerGroupId parameter and the MasterSlaveServerGroupId parameter at the same time.

Parameter	Type	Required?	Example value	Description
Scheduler	String	No	wrr	Optional. The algorithm used to distribute traffic. Valid values: • wrr (default): Backend servers with higher weights receive more requests than those with smaller weights. • wlc: A server with a higher weight will receive more requests. When the weight value is the same, the backend server with a smaller number of connections is more likely to be polled. • rr: Requests are evenly and sequentially distributed to backend servers. • sch: A consistent hash based on the source IP address. Requests with the same source IP addresses are scheduled to the same backend server. • tch: A consistent hash based on the following four factors: source IP address + destination IP address + source port + destination port. The same streams are scheduled to the same backend server. • qch: A consistent hash based on the QUIC Connection ID. The same QUIC Connection IDs are scheduled to the same backend servers.  Note: Only guaranteed-performance instances support sch, tch, and qch. Currently, the consistent hash

Parameter	Type	Required ?	Example value	Description
UnhealthyThreshold	Integer	No	4	Optional. The number of consecutive failures of health checks before a backend server is declared as unhealthy (that is, changes from success to failure state). Value range: 2 to 10
VServerGroupId	String	No	rsp-cige6j5e7p	Optional. The ID of the VServer group.
healthCheckExp	String	No	ok	Optional. The health check response string of the UDP listener. The string must be 1 to 500 characters in length and can contain letters and numbers only.
healthCheckInterval	Integer	No	3	Optional. The time interval between two consecutive health checks. Value range:1 to 50. Unit: seconds.
healthCheckReq	String	No	hello	Optional. The request string for UDP listener health checks. It must be 1 to 500 characters in length and can only contain letters and numbers.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = CreateLoad BalancerUD
PListener
& Bandwidth = 34
& ListenerPort = 80
& LoadBalancerId = lb - bp1ygod3yc tvgl1y7wezm s
&< CommonParameters >
```

Response examples

XML format

```
< CreateLoad BalancerUD PListenerResponse >
  < RequestId > 06F00FBB - 3D9E - 4CCE - 9D43 - 1A6946A754 56 </
  RequestId >
</ CreateLoad BalancerUD PListenerResponse >
```

JSON format

```
{
  "RequestId ":" 06F00FBB - 3D9E - 4CCE - 9D43 - 1A6946A754 56 "
}
```

Error codes

HTTP status code	Error code	Error message	Description
400	Abs.VServerGroupIdAndMasterSlaveServerGroupId.MissMatch	The parameters VServerGroupId or MasterSlaveServerGroupId miss match.	VServerGroupId and MasterSlaveServerGroupId do not match.

[See common error codes.](#)

7.2 SetLoadBalancerUDPLListenerAttribute

Modifies the configurations of a UDP listener.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	SetLoadBalancerUDPLListenerAttribute	The name of this action. Value: SetLoadBalancerUDPLListenerAttribute
ListenerPort	Integer	Yes	80	The frontend port configured in the SLB instance. Value range: 1 to 65535
LoadBalancerId	String	Yes	lb-bp1rtfnodmywb43ecu4sf-cn-east-hangzhou-01	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs.
AclId	String	No	off	Optional. The ID of the access control list associated with the listener. If the value of the AclStatus parameter is on, this parameter is required.
AclStatus	String	No	off	Optional. Indicates whether to enable access control. Valid values: on off

Parameter	Type	Required?	Example value	Description
AclType	String	No	white	Optional. The access control method: · white: Indicates a whitelist. Only requests from the IP addresses or CIDR blocks in the selected access control lists are forwarded. It applies to scenarios where an application allows access only from specific IP addresses. Enabling a whitelist poses some risks to your services. After a whitelist is configured, only the IP addresses in the list can access the listener. If you enable a whitelist without adding any IP addresses to the list, no requests are forwarded. · black: Indicates a blacklist. Requests from the IP addresses or CIDR blocks in the selected access control lists are not forwarded (that is, they are blocked). It applies to scenarios where an application denies access only from specific IP addresses. If you enable a blacklist without adding any IP addresses to the list, all

Parameter	Type	Required?	Example value	Description
Bandwidth	Integer	No	-1	Optional. The peak bandwidth of the listener. Valid values: -1 1 to 5120 • -1: The peak bandwidth is not limited. • 1 to 5120: the peak bandwidth of the listener. Unit: Mbit/s. The sum of the peak bandwidth values of all listeners cannot surpass the peak bandwidth of the instance.
Description	String	No	test	Optional. A description of the listener.
HealthCheckConnectPort	Integer	No	80	Optional. The port used for health checks. Valid values: 1 to 65535

Parameter	Type	Required?	Example value	Description
HealthCheckConnectTimeout	Integer	No	100	Optional. The length of time to wait for the response from the health check. If the backend ECS instance does not send a correct response within the specified time, the health check fails. Value range: 1 to 300. Unit: seconds  Note: If the value of HealthCheckInterval is greater than the value of HealthCheckConnectTimeout, the HealthCheckConnectTimeout parameter is invalid, and the timeout is set to the value of HealthCheckInterval.
HealthCheckInterval	Integer	No	5	Optional. The time interval between two consecutive health checks. Value range: 1 to 50. Unit: seconds
HealthyThreshold	Integer	No	4	The number of consecutive successes of health checks before the backend server is declared as healthy (from failure to success). Value range: 2 to 10

Parameter	Type	Required?	Example value	Description
MasterSlaveServerGroup	String	No	on	Optional. Indicates whether to use an active/standby server group. Valid values: on off The value of VServerGroup and the value of MasterSlaveServerGroup cannot be on at the same time.
MasterSlaveServerGroupId	String	No	rsp-0bfucwuotx	Optional. The ID of the active/standby server group.  Note: You can only choose either VServerGroupId or MasterSlaveServerGroupId.

Parameter	Type	Required ?	Example value	Description
Scheduler	String	No	wrr	Optional. The algorithm used to distribute traffic. Valid values: • wrr: A backend server with a higher weight is more likely to be polled. • wlc: A server with a higher weight receives more requests. When the weight values of two backend servers are the same, the backend server with a smaller number of connections is more likely to be polled. • rr: Requests are evenly and sequentially distributed to backend servers. • sch: A consistent hash based on the source IP address. Requests with the same source IP addresses are scheduled to the same backend server. • tch: A consistent hash based on the following four parameters: source IP address + destination IP address + source port + destination port. The same streams are scheduled to the same backend server. • qch: A consistent hash based on the QUIC Connection ID. The same QUIC Connection IDs are scheduled to the same backend servers.



Parameter	Type	Required?	Example value	Description
UnhealthyThreshold	Integer	No	4	Optional. The number of consecutive failures of health checks before a backend server is declared as unhealthy (from success to failure). Value range: 2 to 10
VServerGroup	String	No	on	Optional. Indicates whether to use a VServer group. Valid values: on off  Note: The value of VServerGroup and the value of MasterSlaveServerGroup cannot be on at the same time.
VServerGroupID	String	No	rsp-cige6j5e7p	Optional. The ID of the VServer group.
healthCheckExp	String	No	ok	Optional. The response string for health checks of UDP listeners. It must be 1 to 500 characters in length and can only contain letters and numbers.
healthCheckReq	String	No	hello	Optional. The request string for health checks of UDP listeners. It must be 1 to 500 characters in length and can only contain letters and numbers.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = SetLoadBalancerUDPLi
stenerAttribute
& ListenerPort = 80
& LoadBalancerId = lb - bplrtfnodm ywb43ecu4s f - cn - east -
hangzhou - 01
&< CommonParameters >
```

Response examples

XML format

```
< SetLoadBalancerUDPLi stenerAttributeResponse >
  < RequestId > A0F0643E - D653 - 4F6F - A67F - 205B2A92BE 18 </
  RequestId >
</ SetLoadBalancerUDPLi stenerAttributeResponse >
```

JSON format

```
{
  "RequestId ":" A0F0643E - D653 - 4F6F - A67F - 205B2A92BE 18 "
}
```

Error codes

[See common error codes.](#)

7.3 DescribeLoadBalancerUDPLi stenerAttribute

Queries the configurations of a UDP listener.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeLoadBalancerUDPListenerAttribute	The name of this action. Value: DescribeLoadBalancerUDPListenerAttribute
ListenerPort	Integer	Yes	80	The frontend port used by the SLB instance. Value range: 1 to 65535
LoadBalancerId	String	Yes	lb-bp1rtfnodmywb43e*****	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs.

Response parameters

Parameter	Type	Example value	Description
ListenerPort	Integer	53	The frontend port used by the SLB instance.
BackendServerPort	Integer	53	The backend port used by the SLB instance.  Note: This parameter is not returned if a VServer group is used.
Bandwidth	Integer	-1	The peak bandwidth of the listener.
Status	String	stopped	The status of the listener. Valid values: starting running configuring stopping stopped

Parameter	Type	Example value	Description
Scheduler	String	wrr	The algorithm used to distribute traffic. · wrr (default): Backend servers with higher weights receive more requests than those with smaller weights. · wlc: A server with a higher weight receives more requests. When the weight values of two backend servers are the same, the server with a smaller number of connections is more likely to be polled. · rr: Requests are evenly and sequentially distributed to the backend servers.
HealthCheck	String	on	Indicates whether the health check function is enabled. Valid values: on off
HealthyThreshold	Integer	4	The number of consecutive successes of health checks before a backend server is declared as healthy (from failure to success).
UnhealthyThreshold	Integer	4	The number of consecutive failures of health checks before a backend server is declared as unhealthy (from success to failure).
HealthCheckConnectTimeout	Integer	100	The length of time to wait for the response from a health check.

Parameter	Type	Example value	Description
HealthCheckConnectPort	Integer	8080	The port used for health checks.
HealthCheckInterval	Integer	5	The time interval between two consecutive health checks. Unit: seconds
VServerGroupId	String	rsp-cige6j****8	The ID of the VServer group.
AclId	String	12394388	The ID of the access control list.
AclStatus	String	off	Indicates whether access control is enabled. Valid value: on off. Default value: off

Parameter	Type	Example value	Description
AclType	String	white	The access control method: • white: Indicates a whitelist. Only requests from IP addresses or CIDR blocks in the selected access control list are forwarded . It applies to scenarios where an application only allows access from specific IP addresses. Enabling a whitelist poses some business risks to your services . After a whitelist is configured , only the IP addresses in the list can access the listener. If you enable a whitelist without adding any IP addresses in the corresponding access control list , all requests are forwarded. • black: Indicates a blacklist. Requests from IP addresses or CIDR blocks in the selected access control list are not forwarded (that is, they are blocked). It applies to scenarios where an application only denies access from specific IP addresses. If you enable a blacklist without adding any IP addresses to the list, all requests are forwarded. If the value of the AclStatus parameter is on, this parameter is required.

Parameter	Type	Example value	Description
Description	String	A description of the access control	A description of the access control list.
HealthCheckExp	String	ok	The response string for the health check of the UDP listener.
HealthCheckReq	String	hello	The request string for the health check of the UDP listener.
MasterSlaveServerGroupId	String	rsp-0bfucw****	The ID of the active/standby server group.
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = DescribeLoadBalancer
UDPListenerAttribute
& ListenerPort = 80
& LoadBalancerId = lb - bp1rtfnodm ywb43e *****
&< CommonParameters >
```

Response examples

XML format

```
< DescribeLoadBalancer UDPListenerAttribute Response >
  < AclStatus > off </ AclStatus >
  < HealthCheck > on </ HealthCheck >
  < HealthCheckConnectTimeout > 5 </ HealthCheckConnectTimeout >
  < PersistenceTimeout > 0 </ PersistenceTimeout >
  < ListenerPort > 80 </ ListenerPort >
  < Status > stopped </ Status >
  < Scheduler > wrr </ Scheduler >
  < HealthyThreshold > 3 </ HealthyThreshold >
  < HealthCheckInterval > 2 </ HealthCheckInterval >
  < RequestId > 9C103591 - 2533 - 432B - 9E6B - 6DB098C0E6 5C </
  RequestId >
  < UnhealthyThreshold > 3 </ UnhealthyThreshold >
  < BackendServerPort > 34 </ BackendServerPort >
  < Bandwidth > 67 </ Bandwidth >
```

```
</ DescribeLoadBalancerUDPListenerAttributeResponse >
```

JSON format

```
{
  "AclStatus": "off",
  "HealthCheck": "on",
  "HealthCheckConnectTimeout": 5,
  "PersistenceTimeout": 0,
  "ListenerPort": 80,
  "Status": "stopped",
  "Scheduler": "wrr",
  "HealthyThreshold": 3,
  "HealthCheckInterval": 2,
  "RequestId": "9C103591-2533-432B-9E6B-6DB098C0E65C",
  "UnhealthyThreshold": 3,
  "BackendServerPort": 34,
  "Bandwidth": 67
}
```

Error codes

[See common error codes.](#)

8 TCP listeners

8.1 CreateLoadBalancerTCPListener

Creates a TCP listener.



Note:

The status of a newly created listener is stopped. To start a listener to forward traffic, call [StartLoadBalancerListener](#) after the listener is created.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	CreateLoadBalancerTCPListener	The name of this action. Value: CreateLoadBalancerTCPListener

Parameter	Type	Required?	Example value	Description
Bandwidth	Integer	Yes	-1	The peak bandwidth of the listener. Valid values: -1 1 to 5120 -1: You can set the peak bandwidth of an Internet SLB instance that is billed by traffic to -1. Then, the peak bandwidth is not restricted. 1 to 5120: You can set one peak bandwidth for each listener of an Internet SLB instance that is billed by bandwidth. However, the sum of the peak bandwidth values of all listeners cannot exceed the peak bandwidth of the SLB instance. For more information, see Share instance bandwidth.
ListenerPort	Integer	Yes	80	The frontend port used by the SLB instance. Value range: 1 to 65535
LoadBalancerId	String	Yes	lb-bp1b6c719dfa08ex*****	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou-d	The region to which the SLB instance belongs. To query the region ID, refer to the list of regions and zones or call DescribeRegions.

Parameter	Type	Required?	Example value	Description
AclId	String	No	1323	Optional. The ID of the access control list associated with the listener. If the value of the AclStatus parameter is on, this parameter is required.
AclStatus	String	No	off	Optional. Indicates whether to enable access control. Valid values: on off. Default value: off

Parameter	Type	Required?	Example value	Description
AclType	String	No	black	Optional. The access control type: · white: Indicates a whitelist. Only requests from the IP addresses or CIDR blocks in the selected access control list are forwarded. It applies to scenarios where an application allows access only from specific IP addresses. · black: Indicates a blacklist. Requests from the IP addresses or CIDR blocks in the selected access control list are not forwarded (that is, they are blocked). It applies to scenarios where an application denies access only from specific IP addresses. Enabling a white access control list poses some risks to your services. After a whitelist is configured, only the IP addresses in the list can access the listener. If you enable a whitelist without adding any IP addresses to the list, all requests are forwarded. If you enable a blacklist without adding any IP
				If you enable a blacklist without adding any IP

Parameter	Type	Required?	Example value	Description
BackendServerPort	Integer	No	80	Optional. The backend port used by the SLB instance. Value range: 1 to 65535 If the VServerGroupId parameter is not specified, this parameter is required.
Description	String	No	Create a listener.	Optional. A description of the listener to be created. The description must be 1 to 80 characters in length and can contain letters, numbers, Chinese characters, hyphens (-), slashes (/), periods (.), and underscores (_). Chinese characters are supported.
EstablishedTimeout	Integer	No	500	Optional. The timeout value of the TCP connection. Value range: 10 to 900. Unit: seconds
HealthCheckConnectPort	Integer	No	80	Optional. The port used for health checks. Value range: 1 to 65535 If you do not set this parameter, the backend service port (BackendServerPort) is used.

Parameter	Type	Required?	Example value	Description
HealthCheckConnectTimeout	Integer	No	100	Optional. The maximum timeout value for each health check response. Value range: 1 to 300. Unit: seconds Default: 5
HealthCheckDomain	String	No	\$_ip	Optional. The domain name used for health checks. Valid values: • \$_ip: the private IP address of the backend server. If the IP address is specified or this parameter is not specified, SLB uses private IP addresses of backend servers as the domain names for health checks. • domain: The domain name must be 1 to 80 characters in length, and can only contain letters, numbers, periods (.), and hyphens (-).
HealthCheckHttpCode	String	No	http_2xx, http_3xx	Optional. The HTTP status code indicating that the health check is normal. Separate multiple HTTP status codes by commas (,). Valid values: http_2xx http_3xx http_4xx http_5xx. Default value: http_2xx

Parameter	Type	Required?	Example value	Description
HealthCheckType	String	No	tcp	Optional. The health check type. Valid values: tcp http. Default value: tcp
HealthCheckURI	String	No	/test/index.html	Optional. The URI used for health checks. You can set this parameter when the TCP listener requires HTTP health checks. If you do not set this parameter, TCP health checks are performed.
HealthyThreshold	Integer	No	4	Optional. The number of consecutive successes of health checks before a backend server is declared as healthy (from failure to success). Value range: 2 to 10
MasterSlaveServerGroupId	String	No	rsp-0bfucw****	Optional. The ID of the active/standby server group.  Note: You can only choose either VServerGroupId or MasterSlaveServerGroupId.

Parameter	Type	Required?	Example value	Description
PersistenceTimeout	Integer	No	0	Optional. The timeout value of the session persistence. Value range: 0 to 3600. Unit: seconds Default value: 0, which indicates that session persistence is disabled.
Scheduler	String	No	wrr	Optional. The algorithm used to distribute traffic. Valid values: wrr wlc rr · wrr (default): Backend servers with higher weights receive more requests than those with smaller weights. · wlc: A server with a higher weight receives more requests. When the weight values of two backend servers are the same, the server with a smaller number of connections is more likely to be polled. · rr: Requests are evenly and sequentially distributed to backend servers.

Parameter	Type	Required?	Example value	Description
UnhealthyThreshold	Integer	No	4	Optional. The number of consecutive failures of health checks before a backend server is declared as unhealthy (from success to failure). Value range: 2 to 10
VServerGroupID	String	No	rsp-cige6j*****	Optional. The ID of the VServer group.
HealthCheckInterval	Integer	No	3	Optional. The time interval between two consecutive health checks. Value range: 1 to 50. Unit: seconds

Response parameters

Parameter	Type	Example value	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = CreateLoad BalancerTC
PListener
& Bandwidth =- 1
& ListenerPort = 80
& LoadBalancerId = lb - bp1b6c719d fa08ex *****
&< CommonParameters >
```

Response examples

XML format

```
< CreateLoad BalancerTC PListenerResponse >
```

```
< RequestId > CEF72CEB - 54B6 - 4AE8 - B225 - F876FF7BA9 84 </
RequestId >
</ CreateLoad BalancerTC PListenerR esponse >
```

JSON format

```
{
  " RequestId ":" CEF72CEB - 54B6 - 4AE8 - B225 - F876FF7BA9 84 "
}
```

Error codes

HTTP status code	Error code	Error message	Description
400	Abs.VServerGroupIdAndMasterSlaveServerGroupId.MissMatch	The parameters VServerGroupId or MasterSlaveServerGroupId miss match.	VServerGroupId and MasterSlaveServerGroupId do not match.

[See common error codes.](#)

8.2 SetLoadBalancerTCPLListenerAttribute

Modifies the configurations of a TCP listener.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	SetLoadBalancerTCPLListenerAttribute	The name of this action. Value: SetLoadBalancerTCPLListenerAttribute
ListenerPort	Integer	Yes	80	The frontend port used by the SLB instance. Value range: 1 to 65535

Parameter	Type	Required?	Example value	Description
LoadBalancerId	String	Yes	lb-bp1ygod3yctvgly7wezms	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou-d	The ID of the region to which the SLB instance belongs. To query the region ID, refer to the list of regions and zones or call DescribeRegions .
AclId	String	No	12333	Optional. The ID of the access control list associated with the listener. If the value of the AclStatus parameter is on, this parameter is required.
AclStatus	String	No	off	Optional. Indicates whether to enable access control. Valid values: on off

Parameter	Type	Required?	Example value	Description
AclType	String	No	white	Optional. The access control method: · white: Only requests from IP addresses or CIDR blocks in the selected access control list are forwarded. It applies to scenarios where the application only allows access from some specific IP addresses. Enabling a whitelist poses some risks to your services. After a whitelist is configured, only the IP addresses in the list can access the listener. If you enable a whitelist without adding any IP addresses in the list, all requests are forwarded. · black: Requests from IP addresses or CIDR blocks in the selected access control list are not forwarded. It applies to scenarios where the application only denies access from some specific IP addresses. If you enable a blacklist without adding any IP addresses in the list, all requests are forwarded.
				If the value of the AclStatus parameter is on, this

Parameter	Type	Required?	Example value	Description
Bandwidth	Integer	No	43	Optional. The peak bandwidth of the listener. Unit: Mbit/s. Valid values: -1 1 to 5120 -1: You can set the peak bandwidth of an Internet SLB instance that is billed by traffic to -1. Then, the peak bandwidth is not restricted. 1 to 5120: You can set one peak bandwidth for each listener of an Internet SLB instance that is billed by bandwidth. However, the sum of the peak bandwidth values of all listeners cannot exceed the peak bandwidth of the SLB instance. For more information, see Share bandwidth.
Description	String	No	test	Optional. A description of the TCP listener.
EstablishedTimeout	Integer	No	500	Optional. The timeout value of the TCP connection. Value range: 10 to 900. Unit: seconds
HealthCheckConnectPort	Integer	No	8080	Optional. The port used for health checks. Value range: 1 to 65535 If you do not set this parameter, the backend server port (BackendServerPort) is used.

Parameter	Type	Required?	Example value	Description
HealthCheckConnectTimeout	Integer	No	100	Optional. The length of time to wait for the response from the health check. If the backend ECS instance does not send a correct response within the specified time, the health check fails. Value range: 1 to 300. Unit: seconds  Note: If the value of HealthCheckInterval is greater than the value of HealthCheckConnectTimeout, the HealthCheckConnectTimeout parameter is invalid, and the timeout is set to the value of HealthCheckInterval.

Parameter	Type	Required?	Example value	Description
HealthCheckDomain	String	No	\$_ip	Optional. The domain name used for health checks. You can set this parameter when the TCP listener requires HTTP health checks. If you do not set this parameter, TCP health checks are performed. · \$_ip: the private IP address of the backend server. When the IP address is specified or this parameter is not specified, SLB uses private IP addresses of backend servers as the domain names for health checks. · domain: The domain name must be 1 to 80 characters in length, and can only contain letters, numbers, periods (.), and hyphens (-).
HealthCheckHttpCode	String	No	http_2xx, http_3xx	Optional. The HTTP status code indicating that the health check is normal. Separate multiple HTTP status codes by commas (,). Valid values: http_2xx http_3xx http_4xx http_5xx

Parameter	Type	Required ?	Example value	Description
HealthCheckInterval	Integer	No	5	Optional. The time interval between two consecutive health checks. Value range: 1 to 50. Unit: seconds
HealthCheckType	String	No	tcp	Optional. The health check type. Valid values: tcp http
HealthCheckURI	String	No	/test/index.html	Optional. The URI used for health checks. You can set this parameter when the TCP listener requires HTTP health checks. If you do not set this parameter , TCP health checks are performed.
HealthyThreshold	Integer	No	4	Optional. The number of consecutive successes of health checks before a backend server is declared as healthy (from failure to success). Value range: 2 to 10

Parameter	Type	Required?	Example value	Description
MasterSlaveServerGroup	String	No	on	Optional. Indicates whether to use an active/standby server group. Valid values: on off The value of VServerGroup and the value of MasterSlaveServerGroup cannot be on at the same time.
MasterSlaveServerGroupId	String	No	rsp-cige*****	Optional. The ID of the active/standby server group.  Note: You can only choose either VServerGroupId or MasterSlaveServerGroupId.
PersistenceTimeout	Integer	No	0	Optional. The timeout value of the session persistence. Value range: 0 to 3600. Unit: seconds Default value: 0, which indicates that session persistence is disabled.

Parameter	Type	Required?	Example value	Description
Scheduler	String	No	wrr	Optional. The algorithm used to distribute traffic. Value values: • wrr: A backend server with a higher weight is more likely to be polled. • wlc: A server with a higher weight receives more requests. When the weight values of two backend servers are the same, the server with a smaller number of connections is more likely to be polled. • rr: Requests are evenly and sequentially distributed to backend servers. • sch: A consistent hash based on source IP addresses. Requests with the same source IP addresses are scheduled to the same backend server. • tch: A consistent hash based on the following four variables: source IP address + destination IP address + source port + destination port. The same streams are scheduled to the same backend server.  Note: Only guaranteed-performance instances support sch and tch.

Parameter	Type	Required ?	Example value	Description
SynProxy	String	No	enable	Optional. Indicates whether to enable SynProxy. SynProxy protects SLB from attacks. We recommend that you retain the value set by SLB in this parameter. Valid values: enable disable
UnhealthyThreshold	Integer	No	4	Optional. The number of consecutive failures of health checks before a backend server is declared as unhealthy (from success to failure). Value range: 2 to 10
VServerGroup	String	No	on	Optional. Indicates whether to use a VServer group. Valid values: on off The value of VServerGroup and the value of MasterSlaveServerGroup cannot be on at the same time.
VServerGroupId	String	No	rsp-cige6j5*****	Optional. The ID of the VServer group.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = SetLoadBalancerTCPLi
stenerAttr ibute
& ListenerPort = 80
& LoadBalancerId = lb - bp1ygod3yc - tvgl7y7wezms
&< CommonParameters >
```

Response examples

XML format

```
< SetLoadBalancerTCPListenerAttributeResponse >
  < RequestId > 59B41B53 - BC4B - 481A - 9D8D - 2A0D20B3FC D1 </
  RequestId >
</ SetLoadBalancerTCPListenerAttributeResponse >
```

JSON format

```
{
  "RequestId": "59B41B53 - BC4B - 481A - 9D8D - 2A0D20B3FC D1 "
}
```

Error codes

[See common error codes.](#)

8.3 DescribeLoadBalancerTCPListenerAttribute

Queries the configurations of a TCP listener.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeLoadBalancerTCPListenerAttribute	The name of this action. Value: DescribeLoadBalancerTCPListenerAttribute

Parameter	Type	Required?	Example value	Description
ListenerPort	Integer	Yes	80	The frontend port used by the SLB instance. Value range: 1 to 65535
LoadBalancerId	String	Yes	lb-bp1ygod3yctvgly7wezms	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The region to which the SLB instance belongs. To query the region ID, refer to the list of regions and zones or call the DescribeRegions API.

Response parameters

Parameter	Type	Example value	Description
ListenerPort	Integer	443	The frontend port used by the SLB instance.
BackendServerPort	Integer	443	The backend port used by the SLB instance.  Note: This parameter is not displayed when the backend server group is a virtual server group.
Bandwidth	Integer	-1	The peak bandwidth of the listener.
Status	String	stopped	The status of the listener. Valid values: starting running configuring stopping stopped

Parameter	Type	Example value	Description
SynProxy	String	enable	Indicates whether to enable SynProxy. SynProxy protects SLB from attacks. We recommend that you retain the value set by SLB in this parameter. · enable: Enable SynProxy. · disable: Disable SynProxy.
Scheduler	String	wrr	The algorithm used to distribute traffic. · wrr (default): Backend servers with higher weights receive more requests than those with smaller weights. · wlc: A server with a higher weight receives more connections. When the weight values of two backend servers are the same, the backend server with a smaller number of connections is more likely to be polled. · rr: Requests are evenly and sequentially distributed to backend servers.
PersistenceTimeout	Integer	0	Indicates whether to enable session persistence. When the value is 0, session persistence is disabled.
HealthCheckType	String	tcp	The health check type of the TCP listener. Valid values: tcp http

Parameter	Type	Example value	Description
HealthCheck	String	on	Indicates whether to enable the health check function. Valid values: on off
HealthyThreshold	Integer	4	The number of consecutive successes of health checks before a backend server is declared as healthy (from failure to success).
UnhealthyThreshold	Integer	4	The number of consecutive failures of health checks before a backend server is declared as unhealthy (from success to failure).
HealthCheckConnectPort	Integer	8080	The maximum amount of time to wait for the response from a health check. Unit: seconds
HealthCheckInterval	Integer	5	The time interval between two consecutive health checks. Unit: seconds.
HealthCheckDomain	String	\$_ip	The domain name used for health checks.
HealthCheckURI	String	/test/index.html	The URI used for health checks.
HealthCheckHttpCode	String	http_2xx, http_3xx	The HTTP status code indicating that the health check is normal.
VServerGroupId	String	rsp-cige6j5e7p	The ID of the VServer group.

Parameter	Type	Example value	Description
AclId	String	12	The ID of the access control list associated with the listener. If the value of the AclStatus parameter is on, this parameter is required.
AclStatus	String	off	Indicates whether to enable access control. Valid values: on off. Default value: off

Parameter	Type	Example value	Description
AclType	String	white	The access control type: • white: Indicates a whitelist. Only requests from the IP addresses or CIDR blocks in the selected access control lists are forwarded. It applies to scenarios where an application allows access only from specific IP addresses. Enabling a whitelist poses some risks to your services. After a whitelist is configured, only the IP addresses in the list can access the listener. If you enable a whitelist without adding any IP addresses in the list, no requests are forwarded. • black: Indicates a blacklist. Requests from the IP addresses or CIDR blocks in the selected access control lists are not forwarded (that is, they are blocked). It applies to scenarios where an application denies access only from specific IP addresses. If you enable a blacklist without adding any IP addresses to the list, all requests are forwarded. If the value of the AclStatus parameter is on, this parameter is required.

Parameter	Type	Example value	Description
Description	String	Description	A description of the listener.
EstablishedTimeout	Integer	500	The timeout value of the TCP connection. Unit: seconds.
HealthCheckConnectTimeout	Integer	100	The timeout value.
MasterSlaveServerGroupID	String	rsp-0bfucwuotx	The ID of the active/standby server group.
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = DescribeLoadBalancer
TCPListenerAttribute
& ListenerPort = 80
& LoadBalancerId = lb - bplygod3yc tvgly7wezms
&< CommonParameters >
```

Response examples

XML format

```
< DescribeLoadBalancerTCPListenerAttributeResponse >
  < HealthCheckHttpCode > http_2xx , http_3xx </ HealthCheckHttpCode >
  < PersistenceTimeout > 0 </ PersistenceTimeout >
  < HealthCheckType > tcp </ HealthCheckType >
  < HealthyThreshold > 3 </ HealthyThreshold >
  < Scheduler > wrr </ Scheduler >
  < UnhealthyThreshold > 3 </ UnhealthyThreshold >
  < Bandwidth > -1 </ Bandwidth >
  < Description > tcp_80 </ Description >
  < AclStatus > off </ AclStatus >
  < HealthCheckURI > </ HealthCheckURI >
  < HealthCheck > on </ HealthCheck >
  < HealthCheckConnectTimeout > 5 </ HealthCheckConnectTimeout >
  < ListenerPort > 80 </ ListenerPort >
  < Status > running </ Status >
  < EstablishedTimeout > 900 </ EstablishedTimeout >
  < HealthCheckDomain > / </ HealthCheckDomain >
  < HealthCheckInterval > 2 </ HealthCheckInterval >
```

```

    < RequestId > 9A113A8C - BB8F - 475E - 9533 - 7819ECA2FF C1 </
    RequestId >
    < BackendServerPort > 80 </ BackendServerPort >
  </ DescribeLoadBalancerTCPListenerAttributesResponse >

```

JSON format

```

{
  "HealthCheckHttpCode": "http_2xx , http_3xx ",
  "Description": "tcp_80 ",
  "AclStatus": "off ",
  "HealthCheckURI": "/",
  "HealthCheck": "on ",
  "HealthCheckConnectTimeout": 5 ,
  "PersistenceTimeout": 0 ,
  "ListenerPort": 80 ,
  "Status": "running ",
  "EstablishedTimeout": 900 ,
  "HealthCheckType": "tcp ",
  "HealthCheckInterval": 2 ,
  "HealthCheckDomain": "",
  "HealthyThreshold": 3 ,
  "Scheduler": "wrr ",
  "RequestId": "9A113A8C - BB8F - 475E - 9533 - 7819ECA2FF C1 ",
  "UnhealthyThreshold": 3 ,
  "BackendServerPort": 80 ,
  "Bandwidth": -1
}

```

Error codes

[See common error codes.](#)

9 HTTP listeners

9.1 SetLoadBalancerHTTPListenerAttribute

Modifies the configurations of an HTTP listener.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	SetLoadBalancerHTTPListenerAttribute	The name of this action. Value: SetLoadBalancerHTTPListenerAttribute
ListenerPort	Integer	Yes	80	The frontend port used by the SLB instance. Value range: 1 to 65535
LoadBalancerId	String	Yes	lb-bp1qjwo61pqz3ahlv0mw	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs. To query the region ID, refer to the list of regions and zones or call DescribeRegions .

Parameter	Type	Required?	Example value	Description
AclId	String	No	123	Optional. The ID of the access control list associated with the listener. If the value of the AclStatus parameter is on, this parameter is required.
AclStatus	String	No	off	Optional. Indicates whether to enable access control. Valid values: on off

Parameter	Type	Required?	Example value	Description
AclType	String	No	white	Optional. The access control method: · white: Indicates a whitelist. Only requests from the IP addresses or CIDR blocks in the selected access control list are forwarded. It applies to scenarios where an application allows access only from specific IP addresses. Enabling a white access control list poses some risks to your services. After a whitelist is configured, only the IP addresses in the list can access the listener. If you enable a whitelist without adding any IP addresses in the list, all requests are forwarded. · black: Indicates a blacklist. Requests from the IP addresses or CIDR blocks in the selected access control list are not forwarded (that is, they are blocked). It applies to scenarios where an application denies access only from specific IP addresses.

Parameter	Type	Required?	Example value	Description
Bandwidth	Integer	No	-1	Optional. The peak bandwidth of the listener. Valid values: -1 1 to 5120. Unit: Mbit/s -1: Setting the peak bandwidth to -1 for an Internet instance that is billed by traffic results in unlimited bandwidth.
Cookie	String	No	B490B5EBF6F3CD402E515D22BCDA1598	Optional. The cookie configured on the backend server. The cookie must be 1 to 200 characters in length and can only contain ASCII English letters and numbers. It cannot contain commas (,), semicolons (;), or spaces, nor can it begin with \$. When the value of StickySession is on and the value of StickySessionType is server, this parameter is required.
CookieTimeout	Integer	No	500	Optional. Timeout period of the cookie. Value range: 1 to 86400. Unit: seconds This parameter is required when the value of StickySession is on and the value of StickySessionType is insert.

Parameter	Type	Required?	Example value	Description
Description	String	No	test	Optional. A description of the listener.
Gzip	String	No	on	Optional. Indicates whether to enable Gzip compression.
HealthCheck	String	No	on	Optional. Indicates whether to enable the health check function. Valid values: on off
HealthCheckConnectPort	Integer	No	8080	Optional. The port used for health checks. Value range: 1 to 65535
HealthCheckDomain	String	No	\$_ip	Optional. The domain name used for health checks. Valid values: \$_ip: private IP address of the backend server. If \$_ip is specified or HealthCheckDomain is not specified, SLB uses the private IP addresses of backend servers as the domain names for health checks. - domain: the domain name, which must be 1 to 80 characters in length and can only contain letters, numbers, periods (.), and hyphens (-).

Parameter	Type	Required ?	Example value	Description
HealthCheckHttpCode	String	No	http_2xx, http_3xx	Optional. The HTTP status code indicating that the health check is normal. Separate multiple HTTP status codes by commas (,). Valid values: http_2xx http_3xx http_4xx http_5xx
HealthCheckInterval	Integer	No	5	Optional. The time interval between two consecutive health checks. Value range: 1 to 50. Unit: seconds
HealthCheckTimeout	Integer	No	3	Optional. The length of time to wait for the response from the health check. If the backend ECS instance does not send a correct response within the specified time, the health check fails. Value range: 1 to 300. Unit: seconds  Note: If the value of HealthCheckTimeout is smaller than that of HealthCheckInterval, the parameter HealthCheckTimeout is invalid, and the timeout is set to the value of HealthCheckInterval.

Parameter	Type	Required?	Example value	Description
HealthCheckURI	String	No	/test/index.html	Optional. The URI used for health checks.
HealthyThreshold	Integer	No	4	Optional. The number of consecutive successes of health checks before a backend server is declared as healthy (from failure to success). Value range: 2 to 10
IdleTimeout	Integer	No	12	Optional. The idle connection timeout. Value range: 1 to 60. Default value: 15. Unit: seconds If no request is received during the specified timeout period, SLB temporarily terminates the connection and restarts the connection when the next request is received.
RequestTimeout	Integer	No	3	Optional. The request timeout. Value range: 1 to 180. Default value: 60. Unit: seconds. If the backend server does not send a correct response during the specified timeout period, SLB stops waiting and sends an HTTP 504 error to the client.

Parameter	Type	Required?	Example value	Description
Scheduler	String	No	wrr	Optional. The algorithm used to distribute traffic. Value values: · wrr: A backend server with a higher weight is more likely to be polled. · lc: A server with a higher weight receives more requests. When the weight values of two backend servers are the same, the server with a smaller number of connections is more likely to be polled. · rr: Requests are evenly and sequentially distributed to backend servers.
StickySession	String	No	on	Optional. Indicates whether to enable session persistence. Valid values: on off

Parameter	Type	Required?	Example value	Description
StickySessionType	String	No	on	Optional. The method used to handle the cookie. Valid values: · insert: Insert a cookie. SLB adds a cookie to the first response from the backend server (that is, it inserts SERVERID in the HTTP/HTTPS response packet). Then, the next request contains the cookie and the listener distributes the request to the same backend server. · server: Rewrite the cookie. SLB overwrites the original cookie when a new cookie is set. The next time the client carries the new cookie to access SLB, the listener distributes the request to the previously recorded backend server.  Note: If the value of StickySession is on, this parameter is required.

Parameter	Type	Required?	Example value	Description
UnhealthyThreshold	Integer	No	4	Optional. The number of consecutive failures of health checks before a backend server is declared as unhealthy (from success to failure). Value range: 2 to 10
VServerGroup	String	No	on	Optional. Indicates whether to use a VServer group. Valid values: on off
VServerGroupId	String	No	rsp-cige6j5e7p	Optional. The ID of the VServer group.
XForwardedFor	String	No	on	Optional. Indicates whether to get the real IP address of a client request through X-Forwarded-For. Valid values: on off. Default value: on
XForwardedFor_SLBID	String	No	on	Optional. Indicates whether to use the SLB - ID header field to obtain the SLB instance ID. Valid values: on off. Default value: off If you do not set this parameter, the default value is used.

Parameter	Type	Required?	Example value	Description
XForwardedFor_SLBIP	String	No	on	Optional. Indicates whether to use the <code>SLB - IP</code> header field to obtain the real IP address of a client request. Valid values: on off. Default value: off  Note: If you do not set this parameter, the default value is used.
XForwardedFor_proto	String	No	on	Optional. Indicates whether to use the <code>X - Forwarded - Proto</code> header field to obtain the listening protocol used by the SLB instance. Valid values: on off. Default value: off If you do not set this parameter, the default value is used.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request.

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = SetLoadBalancerHTTPListenerAttribute
& ListenerPort = 80
```

```
& LoadBalancerId = lb - bp1qjwo61p qz3ahltv0m w
&< CommonParameters >
```

Response examples

XML format

```
< SetLoadBalancerHTTPListenerAttributeResponse >
  < RequestId > CEF72CEB - 54B6 - 4AE8 - B225 - F876FF7BA9 84 </
    RequestId >
</ SetLoadBalancerHTTPListenerAttributeResponse >
```

JSON format

```
{
  "RequestId ":" CEF72CEB - 54B6 - 4AE8 - B225 - F876FF7BA9 84 "
}
```

Error codes

[See common error codes.](#)

9.2 CreateLoadBalancerHTTPListener

Creates an HTTP listener.



Note:

A newly created listener is in the Stopped state. After you create a listener, you must call the [StartLoadBalancerListener](#) API to start the listener to forward traffic.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	CreateLoadBalancerHTTPListener	The name of this action. The name of this action. Value: CreateLoadBalancerHTTPListener

Parameter	Type	Required?	Example value	Description
HealthCheck	String	Yes	on	Indicates whether to enable the health check function. Valid values: on off
ListenerPort	Integer	Yes	80	The frontend port used by the SLB instance. Value range: 1 to 65535
LoadBalancerId	String	Yes	lb-bp1c9vixxjh92q83tw*****	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs. To query the region ID, refer to the list of regions and zones or call DescribeRegions .
StickySession	String	Yes	off	Indicates whether to enable session persistence. Valid values: on off
AclId	String	No	123	Optional. The ID of the access control list associated with the listener to be created. If the value of the AclStatus parameter is on, this parameter is required.
AclStatus	String	No	off	Optional. Indicates whether to enable access control. Valid values: on off. Default value: off

Parameter	Type	Required?	Example value	Description
AclType	String	No	white	Optional. The access control type: · white: Indicates a whitelist. Only requests from the IP addresses or CIDR blocks in the selected access control list are forwarded. It applies to scenarios where an application allows access only from specific IP addresses. · black: Indicates a blacklist. Requests from the IP addresses or CIDR blocks in the selected access control list are not forwarded (that is, they are blocked). It applies to scenarios where an application denies access only from specific IP addresses.

Parameter	Type	Required?	Example value	Description
BackendServerPort	Integer	No	80	Optional. The backend port used by the SLB instance. Value range: 1 to 65535  Note: If no VServer group is used (the VServerGroupId parameter is not specified), this parameter is required.
Bandwidth	Integer	No	-1	Optional. The peak bandwidth of the listener. Valid values: · -1: The peak bandwidth is not limited. · 1 to 5120: the peak bandwidth of the listener. The sum of the peak bandwidth values of all listeners cannot surpass the peak bandwidth of the SLB instance.  Note: This parameter applies only to the China site.

Parameter	Type	Required?	Example value	Description
Cookie	String	No	B490B5EBF6 F3CD402E51 5D22BCDA15 98	Optional. The cookie configured on the backend server. The cookie must be 1 to 200 characters in length and can only contain ASCII English letters and numbers. It cannot contain commas (,), semicolons (;), or spaces, nor can it begin with \$. When the value of StickySession is on and the value of StickySessionType is server, this parameter is required.
CookieTimeout	Integer	No	500	Optional. The timeout period of the cookie. Value range: 1 to 86400. Unit: seconds  Note: This parameter is required when the value of StickySession is on and the value of StickySessionType is insert.

Parameter	Type	Required?	Example value	Description
Description	String	No	Listener description	Optional. A description of the listener to be created. The description must be 1 to 80 characters in length and can contain letters, numbers, Chinese characters, hyphens (-), slashes (/), periods (.), and underscores (_). Chinese characters are supported.
ForwardPort	Integer	No	443	Optional. The port used for redirecting from HTTP to HTTPS.
Gzip	String	No	on	Optional. Indicates whether to enable Gzip compression to compress a specific file type. Default value: on Valid values: on off
HealthCheckConnectPort	Integer	No	80	Optional. The backend port used for health checks. Value range: 1 to 65535

Parameter	Type	Required?	Example value	Description
HealthCheckDomain	String	No	\$_ip	Optional. The domain name used for health checks. Valid values: · \$_ip: the private IP address of the backend server. If the IP address is specified or this parameter is not specified, SLB uses the private IP addresses of backend servers as the domain names for health checks. · domain: The domain name must be 1 to 80 characters in length, and can only contain letters, numbers, periods (.), and hyphens (-).
HealthCheckHttpCode	String	No	http_2xx, http_3xx	Optional. The HTTP status code indicating that the health check is normal. Separate multiple HTTP status codes by commas (,). Default value: http_2xx Valid values: http_2xx http_3xx http_4xx http_5xx
HealthCheckInterval	Integer	No	5	Optional. The time interval between two consecutive health checks. Value range: 1 to 50. Unit: seconds

Parameter	Type	Required?	Example value	Description
HealthCheckTimeout	Integer	No	3	Optional. The length of time to wait for the response from the health check. If the backend ECS instance does not send a correct response within the specified time, the health check fails. Value range: 1 to 300. Unit: seconds  Note: If the value of HealthCheckTimeout is smaller than that of HealthCheckInterval, the parameter HealthCheckTimeout is invalid, and the timeout is set to the value of HealthCheckInterval.
HealthCheckURI	String	No	/test/index.html	Optional. The URI used for health checks.
HealthyThreshold	Integer	No	4	Optional. The number of consecutive successes of health checks before a backend server is declared as healthy (from failure to success). Value range: 2 to 10

Parameter	Type	Required?	Example value	Description
IdleTimeout	Integer	No	3	Optional. The idle connection timeout. Value range: 1 to 60. Default value: 15. Unit: seconds If no request is received during the specified timeout period, SLB temporarily terminates the connection and restarts the connection when the next request is received.
ListenerForward	String	No	off	Optional. Indicates whether to enable redirecting from HTTP to HTTPS. Valid values: on off
RequestTimeout	Integer	No	6	Optional. The request timeout. Value range: 1 to 180. Default value: 60. Unit: seconds If the backend server does not respond within the specified timeout period, SLB stops waiting and returns an HTTP 504 error code to the client.

Parameter	Type	Required ?	Example value	Description
Scheduler	String	No	wrr	Optional. The algorithm used to distribute traffic. Valid values: • wrr (default): Backend servers with higher weights receive more requests than those with smaller weights. • wlc: A server with a higher weight will receive more requests. When the weight values of two backend servers are the same, the server with a smaller number of connections is more likely to be polled. • rr: Requests are evenly and sequentially distributed to backend servers.

Parameter	Type	Required?	Example value	Description
StickySessionType	String	No	on	Optional. The method used to handle the cookie. Valid values: · insert: Insert a cookie. SLB adds a cookie to the first response from the backend server (that is, it inserts SERVERID in the HTTP/HTTPS response packet). Then, the next request contains the cookie and the listener distributes the request to the same backend server. · server: Rewrite the cookie. SLB overwrites the original cookie when a new cookie is set. The next time the client carries the new cookie to access SLB, the listener distributes the request to the previously recorded backend server.  Note: If the value of StickySession is on, this parameter is required.

Parameter	Type	Required?	Example value	Description
UnhealthyThreshold	Integer	No	4	Optional. The number of consecutive failures of health checks before a backend server is declared as unhealthy (from success to failure). Value range: 2 to 10
VServerGroupID	String	No	rsp-cige6j*****	Optional. The ID of the VServer group.
XForwardedFor	String	No	on	Optional. Indicates whether to use the X-Forwarded-For header field to obtain the real IP address of a client. Default value: on Valid values: on off
XForwardedFor_SLBID	String	No	on	Optional. Indicates whether to use the SLB - ID header field to obtain the SLB instance ID. Valid values: on off. Default value: off
XForwardedFor_SLBIP	String	No	on	Optional. Indicates whether to use the SLB - IP header field to obtain the real IP address of a client request. Valid values: on off. Default value: off

Parameter	Type	Required?	Example value	Description
XForwardedFor_proto	String	No	on	Optional. Indicates whether to use the <code>X - Forwarded - Proto</code> header field to obtain the listening protocol used by the SLB instance. Valid values: on off. Default value: off

Response parameters

Parameter	Type	Example value	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request.

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = CreateLoad BalancerHT
TListener
& HealthCheck = on
& ListenerPort = 80
& LoadBalancerId = lb - bp1c9vixxj h92q83tw *****
& StickySession = off
&< CommonParameters >
```

Response examples

XML format

```
< CreateLoad BalancerHT TListener Response >
  < RequestId > 1FF504CB - BFFF - 4508 - A51A - 58A416604F C8 </
  RequestId >
</ CreateLoad BalancerHT TListener Response >
```

JSON format

```
{
  "RequestId ":" 1FF504CB - BFFF - 4508 - A51A - 58A416604F C8 "
```

Error codes

[See common error codes.](#)

9.3 DescribeLoadBalancerHTTPListenerAttribute

Queries the configurations of an HTTP listener.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeLoadBalancerHTTPListenerAttribute	The name of this action. Value: DescribeLoadBalancerHTTPListenerAttribute
ListenerPort	Integer	Yes	80	The frontend port used by the SLB instance. Value range: 1 to 65535
LoadBalancerId	String	Yes	lb-bp1o94dp5i6earr9g6d1l-cn-east-hangzhou-01	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs. To query the region ID, refer to the list of regions and zones or call DescribeRegions .

Response parameters

Parameter	Type	Example value	Description
ListenerPort	Integer	80	The frontend port used by the SLB instance.
Bandwidth	Integer	-1	The peak bandwidth of the listener.
Status	String	stopped	The status of the listener. Valid values: starting running configuring stopping stopped
XForwardedFor	String	on	Indicates whether to use X-Forwarded-For to obtain the real IP address of a visitor. Valid values: on off
Scheduler	String	wrr	The algorithm used to distribute traffic. Valid values: wrr wlc rr
StickySession	String	on	Indicates whether session persistence is enabled. Valid values: on off. Default value: off
StickySessionType	String	on	The method used to handle the cookie. If the value of StickySession is on, this parameter is required. Valid values: insert server
CookieTimeout	Integer	500	The timeout period of the cookie.

Parameter	Type	Example value	Description
Cookie	String	B490B5EBF6 F3CD402E51 5D22BCDA1598	The cookie configured on the backend server.
HealthCheck	String	on	Indicates whether the health check function is enabled. Valid values: on off
HealthCheckDomain	String	\$_ip	The domain name used for health checks.
HealthCheckURI	String	/test/index.html	The URI used for health checks.
HealthyThreshold	Integer	4	The number of consecutive successes of health checks before a backend server is declared as healthy (from failure to success).
UnhealthyThreshold	Integer	4	The number of consecutive failures of health checks before a backend server is declared as unhealthy (from success to failure)
HealthCheckTimeout	Integer	3	The maximum length of time (in seconds) to wait for the response from a health check.
HealthCheckInterval	Integer	5	The time interval between two consecutive health checks. Unit: seconds
HealthCheckHttpCode	String	http_2xx, http_3xx	The HTTP status code indicating that the health check is normal.
HealthCheckConnectPort	Integer	8080	The port used for health checks.

Parameter	Type	Example value	Description
VServerGroupId	String	rsp-cige6j5e7p	The ID of the VServer group associated with the listener.
Gzip	String	on	Indicates whether Gzip compression is enabled to compress a specific file type. Valid values: on off
AclId	String	on	The ID of the access control list associated with the listener. If the value of the AclStatus parameter is on, this parameter is required.
AclStatus	String	off	Indicates whether access control is enabled. Valid values: on off. Default value: off

Parameter	Type	Example value	Description
AclType	String	white	The access control type: · white: Indicates a whitelist. Only requests from the IP addresses or CIDR blocks in the selected access control list are forwarded. It applies to scenarios where an application allows access only from specific IP addresses. Enabling a white access control list poses some risks to your services. After a whitelist is configured, only the IP addresses in the list can access the listener . If you enable a whitelist without adding any IP addresses to the list, all requests are forwarded. · black: Indicates a blacklist. Requests from the IP addresses or CIDR blocks in the selected access control list are not forwarded (that is, they are blocked). It applies to scenarios where an application denies access only from specific IP addresses. If you enable a blacklist without adding any IP addresses to the list, all requests are forwarded. If the value of the AclStatus parameter is on, this parameter is required.

Parameter	Type	Example value	Description
BackendServerPort	Integer	80	The backend port used by the SLB instance.
Description	String	test	A description of the HTTP listener.
ForwardPort	Integer	80	The port used for redirecting from HTTP to HTTPS.  Note: If the value of ListenerForward is off, this parameter is not displayed.
IdleTimeout	Integer	2	The idle connection timeout. Value range: 1 to 60. Default value: 15. Unit: seconds If no request is received during the specified timeout period, SLB temporarily terminates the connection and restarts the connection when the next request is received.
ListenerForward	String	on	Indicates whether HTTP-to-HTTPS redirection is enabled. · on: Enabled · off: Not enabled
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The request ID.

Parameter	Type	Example value	Description
RequestTimeout	Integer	34	The request timeout. Value range : 1 to 180. Default value: 60. Unit: seconds. If the backend server does not send a correct response within the specified timeout period, SLB stops waiting and sends an HTTP 504 error code to the client.
Rules			A description of the forwarding rule.
└Domain	String	www.example.com	The domain name.
└RuleId	String	1234	The ID of the forwarding rule.
└RuleName	String	test	The name of the forwarding rule.
└Url	String	/example	The access path.
└VServerGroupId	String	123	The ID of the target VServer group of the forwarding rule.
SecurityStatus	String	on	The security status.
XForwardedFor_SLBID	String	on	Indicates whether the SLB - ID header field is used to obtain the SLB instance ID.
XForwardedFor_SLBIP	String	on	Indicates whether the SLB-IP header field is used to obtain the real IP address of a client request.

Parameter	Type	Example value	Description
XForwardedFor_proto	String	on	Indicates whether the X-Forwarded-Proto header field is used to obtain the listening protocol used by the SLB instance.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = DescribeLoadBalancer
HTTPListenerAttribute
& ListenerPort = 80
& LoadBalancerId = lb - bp1o94dp5i6earr9g6d1l - cn - east -
hangzhou - 01
&< CommonParameters >
```

Response examples

XML format

```
< DescribeLoadBalancer HTTPListenerAttributeResponse >
  < ForwardPort > 443 </ ForwardPort >
  < ListenerPort > 80 </ ListenerPort >
  < Status > stopped </ Status >
  < RequestId > 99439CEF - 192C - 4B01 - A45A - 2D5BD5BCDA 62 </
RequestId >
  < ListenerForward > on </ ListenerForward >
</ DescribeLoadBalancer HTTPListenerAttributeResponse >
```

JSON format

```
{
  " Status ":" stopped ",
  " RequestId ":" 99439CEF - 192C - 4B01 - A45A - 2D5BD5BCDA 62 ",
  " ForwardPort ": 443 ,
  " ListenerForward ":" on ",
  " ListenerPort ": 80
}
```

Error codes

[See common error codes.](#)

10 HTTPS listeners

10.1 SetLoadBalancerHTTPSListenerAttribute

Modifies the configurations of an HTTPS listener.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	SetLoadBalancerHTTPSListenerAttribute	The name of this action. Value: SetLoadBalancerHTTPSListenerAttribute
ListenerPort	Integer	Yes	80	The frontend port used by the SLB instance. Value range: 1 to 65535
LoadBalancerId	String	Yes	139a00604ad-cn-east-hangzhou-01	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs. To query the region ID, refer to the list of regions and zones or call DescribeRegions .

Parameter	Type	Required?	Example value	Description
AclId	String	No	56565	Optional. The ID of the access control list associated with the listener. If the value of the AclStatus parameter is on, this parameter is required.
AclStatus	String	No	off	Optional. Indicates whether to enable access control. Valid values: on off

Parameter	Type	Required?	Example value	Description
AclType	String	No	white	Optional. The access control method: · white: Indicates a whitelist. Only requests from the IP addresses or CIDR blocks in the selected access control list are forwarded. It applies to scenarios where an application allows access only from specific IP addresses. · black: Indicates a blacklist. Requests from the IP addresses or CIDR blocks in the selected access control list are not forwarded (that is, they are blocked). It applies to scenarios where an application denies access only from specific IP addresses. Enabling a white access control list poses some risks to your services. After a whitelist is configured, only the IP addresses in the list can access the listener. If you enable a whitelist without adding any IP addresses to the list, all requests are forwarded. If you enable a blacklist without adding any IP addresses to the list, all requests are forwarded.

Parameter	Type	Required?	Example value	Description
Bandwidth	Integer	No	-1	Optional. The peak bandwidth of the listener. Value: 1 1-5120 · -1: The peak bandwidth is not limited. · 1 to 5120: The sum of the peak bandwidth values of all listeners cannot surpass the peak bandwidth of the SLB instance.
CACertificateId	String	No	139a00604ad-cn-east-hangzhou-01	Optional. The ID of the CA certificate. If both the CA certificate and the server certificate are uploaded, mutual authentication is established. If only the server certificate is uploaded, one-way authentication is established.

Parameter	Type	Required?	Example value	Description
Cookie	String	No	B490B5EBF6 F3CD402E51 5D22BCDA15 98	Optional. The cookie configured on the backend server. The cookie must be 1 to 200 characters in length and can only contain ASCII English letters and numbers. It cannot contain commas (,), semicolons (;), or spaces, nor can it begin with \$. If the value of StickySession is on and the value of StickySessionType is server, this parameter is required.
CookieTimeout	Integer	No	500	Optional. Timeout period of the cookie. Value range: 1 to 86400. Unit: seconds  Note: This parameter is required when the value of StickySession is on and the value of StickySessionType is insert.
Description	String	No	A description of the listener	Optional. A description of the listener.
EnableHttp2	String	No	off	Optional. Indicates whether to enable the HTTP/2 feature. Valid values: on off

Parameter	Type	Required?	Example value	Description
Gzip	String	No	on	Optional. Indicates whether to enable Gzip compression to compress a specific file type. Valid value: on off. Default value: off
HealthCheck	String	No	on	Optional. Indicates whether to enable the health check function. Valid values: on off
HealthCheckConnectPort	Integer	No	8080	Optional. The port used for health checks. Value range: 1 to 65535
HealthCheckDomain	String	No	\$_ip	Optional. The domain name used for health checks. Valid values: \$_ip: the private IP address of the backend server. If the IP address is specified or this parameter is not specified, SLB uses private IP addresses of backend servers as the domain names for health checks. - domain: The domain name must be 1 to 80 characters in length, and can only contain letters, numbers, periods (.), and hyphens (-).

Parameter	Type	Required?	Example value	Description
HealthCheckHttpCode	String	No	http_2xx, http_3xx	Optional. The HTTP status code indicating that the health check is normal. Separate multiple HTTP status codes by commas (,). Valid values: http_2xx http_3xx http_4xx http_5xx
HealthCheckInterval	Integer	No	5	Optional. The time interval between two consecutive health checks. Value range: 1 to 50. Unit: seconds
HealthCheckTimeout	Integer	No	3	Optional. The length of time to wait for the response from the health check. If the backend ECS instance does not send a correct response within the specified time, the health check fails. Value range: 1 to 300. Unit: seconds  Note: If the value of HealthCheckTimeout is smaller than that of HealthCheckInterval, the parameter HealthCheckTimeout is invalid, and the timeout is set to the value of HealthCheckInterval.

Parameter	Type	Required?	Example value	Description
HealthCheckURI	String	No	/test/index.html	Optional. The URI used for health checks.
HealthyThreshold	Integer	No	4	Optional. The number of consecutive successes of health checks before a backend server is declared as healthy (from failure to success). Value range: 2 to 10
IdleTimeout	Integer	No	23	Optional. The idle connection timeout. Value range: 1 to 60. Default value: 15. Unit: seconds If no request is received during the specified timeout period, SLB temporarily terminates the connection and restarts the connection when the next request is received.
RequestTimeout	Integer	No	223	Optional. The request timeout. Value range: 1 to 180. Default value: 60. Unit: seconds. If no response is received from the backend server during the specified timeout period, SLB stops waiting and sends an HTTP 504 error to the client.

Parameter	Type	Required?	Example value	Description
Scheduler	String	No	wrr	Optional. The algorithm used to distribute traffic. Valid values: • wrr (default): Backend servers with higher weights receive more requests than those with smaller weights. • wlc: A server with a higher weight receives more requests. When the weight values of two backend servers are the same, the server with a smaller number of connections is more likely to be polled. • rr: Requests are evenly and sequentially distributed to backend servers.
ServerCertificateId	String	No	idkp-123-cn-test-01	Optional. The ID of the server certificate.
StickySession	String	No	on	Optional. Indicates whether to enable session persistence. Valid values: on off

Parameter	Type	Required?	Example value	Description
StickySessionType	String	No	on	Optional. The method used to handle the cookie. Valid values: · insert: Insert a cookie. SLB adds a cookie to the first response from the backend server (that is, it inserts SERVERID in the HTTP/HTTPS response packet). Then, the next request contains the cookie and the listener distributes the request to the same backend server. · server: Rewrite the cookie. SLB overwrites the original cookie when a new cookie is set. The next time the client carries the new cookie to access SLB, the listener distributes the request to the previously recorded backend server.  Note: If the value of StickySession is on, this parameter is required.

Parameter	Type	Required?	Example value	Description
TLSCipherPolicy	String	No	tls_cipher_policy_1_2	You can only specify the TLSCipherPolicy parameter for guaranteed-performance instances. Each security policy includes the TLS protocol versions that can be selected by HTTPS and the supported cipher suites. Currently, the following four security policies are supported: · tls_cipher_policy_1_0: - Supported TLS versions : TLSv1.0, TLSv1.1, and TLSv1.2. - Supported cipher suites : ECDHE-RSA-AES128-GCM-SHA256, ECDHE-RSA-AES256-GCM-SHA384, ECDHE-RSA-AES128-SHA256, ECDHE-RSA-AES256-SHA384, AES128-GCM-SHA256, AES256-GCM-SHA384, AES128-SHA256, AES256-SHA256, ECDHE-RSA-AES128-SHA, ECDHE-RSA-AES256-SHA, AES128-SHA, AES256-SHA, and DES-CBC3-SHA. · tls_cipher_policy_1_1: - Supported TLS versions: TLSv1.1 and TLSv1.2. - Supported cipher suites : ECDHE-RSA-AES128-GCM-SHA256, ECDHE-RSA-AES256-GCM-SHA384, ECDHE-RSA-AES128-SHA256, ECDHE-RSA-AES256-SHA384, AES128-GCM-SHA256, AES256-GCM-SHA384, AES128-SHA256, AES256-SHA256, ECDHE-RSA-AES128-SHA, ECDHE-RSA-AES256-SHA, AES128-SHA, AES256-SHA, and DES-CBC3-SHA.

Parameter	Type	Required?	Example value	Description
UnhealthyThreshold	Integer	No	4	Optional. The number of consecutive failures of health checks before a backend server is declared as unhealthy (from success to failure). Value range: 2 to 10
VServerGroup	String	No	on	Optional. Indicates whether to use an active/standby server group. Valid values: on off
VServerGroupId	String	No	rsp-cige6j5e7p	Optional. The ID of the VServer group.
XForwardedFor	String	No	on	Optional. Indicates whether to use the X-Forwarded-For header field to obtain the real IP address of a client. Valid values: on off
XForwardedFor_SLBID	String	No	on	Optional. Indicates whether to use the SLB - ID header field to obtain the SLB instance ID. Valid value: on off. Default value: off

Parameter	Type	Required?	Example value	Description
XForwardedFor_SLBIP	String	No	on	Optional. Indicates whether to use the <code>SLB - IP</code> header field to obtain the real IP address of a client request. Valid value: on off. Default value: off
XForwardedFor_proto	String	No	on	Optional. Indicates whether to use the <code>X - Forwarded - Proto</code> header field to obtain the listening protocol used by the SLB instance. Valid values: on off. Default value: off

Response parameters

Parameter	Type	Example value	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = SetLoadBalancerHTTPS
ListenerAttribute
& ListenerPort = 80
& LoadBalancerId = 139a00604a d - cn - east - hangzhou - 01
&< CommonParameters >
```

Response examples

XML format

```
< SetLoadBalancerHTTPS ListenerAttributeResponse >
  < RequestId > CEF72CEB - 54B6 - 4AE8 - B225 - F876FF7BA9 84 </
  RequestId >
```

```
</ SetLoadBalancerHTTPSListenerAttributeResponse >
```

JSON format

```
{  
  "RequestId": "CEF72CEB-54B6-4AE8-B225-F876FF7BA984"  
}
```

Error codes

[See common error codes.](#)

10.2 DescribeLoadBalancerHTTPSListenerAttribute

Queries the configurations of an HTTPS listener.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeLoadBalancerHTTPSListenerAttribute	The name of this action. Value: DescribeLoadBalancerHTTPSListenerAttribute
ListenerPort	Integer	Yes	80	The frontend port used by the SLB instance. Value range: 1 to 65535
LoadBalancerId	String	Yes	lb-bp1mxu5r8laukr35n1k5r	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs.

Response parameters

Parameter	Type	Example value	Description
ListenerPort	Integer	80	The frontend port used by the SLB instance.
BackendServerPort	Integer	80	The backend port used by the SLB instance.
Bandwidth	Integer	-1	The peak bandwidth of the listener.
Status	String	stopped	The status of the listener. Valid values: starting running configuring stopping stopped
XForwardedFor	String	on	Indicates whether the X-Forwarded-For record is used to obtain the real IP address of a visitor. Valid values: on off
Scheduler	String	wrr	The algorithm used to distribute traffic. Valid values: wrr wlc rr
StickySession	String	on	Indicates whether session persistence is enabled. Valid values: on off
StickySessionType	String	on	The method used to handle the cookie. If the value of StickySession is on, this parameter is required. Valid values: insert server
CookieTimeout	Integer	500	The timeout period of the cookie.

Parameter	Type	Example value	Description
Cookie	String	B490B5EBF6 F3CD402E51 5D22BCDA1598	The cookie configured on the backend server.
HealthCheck	String	on	Indicates whether the health check function is enabled. Valid values: on off
HealthCheckDomain	String	\$_ip	The domain name used for health checks.
HealthCheckURI	String	/test/index.html	The URI used for health checks.
HealthyThreshold	Integer	4	The number of consecutive successes of health checks before a backend server is declared as healthy (from failure to success).
UnhealthyThreshold	Integer	4	The number of consecutive failures of health checks before a backend server is declared as unhealthy (from success to failure).
HealthCheckTimeout	Integer	3	The maximum length of time to wait for the response from a health check. Unit: seconds
HealthCheckInterval	Integer	5	The time interval between two consecutive health checks. Unit: seconds
HealthCheckHttpCode	String	http_2xx, http_3xx	The HTTP status code indicating that the health check is normal.
HealthCheckConnectPort	Integer	8080	The port used for health checks.

Parameter	Type	Example value	Description
ServerCertificateId	String	idkp-123-cn-test-01	The ID of the server certificate.
CACertificateId	String	idkp-234-cn-test-02	The ID of the CA certificate.
VServerGroupId	String	rsp-cige6j5e7p	The ID of the VServer group.
Gzip	String	on	Indicates whether Gzip compression is enabled. Valid values: on off
AclId	String	45	The ID of the access control list associated with the listener. If the value of the AclStatus parameter is on, this parameter is required.
AclStatus	String	off	Indicates whether access control is enabled. Valid values: on off. Default value: off

Parameter	Type	Example value	Description
AclType	String	white	The access control type: • white: Indicates a whitelist. Only requests from the IP addresses or CIDR blocks in the selected access control list are forwarded. It applies to scenarios where an application allows access only from specific IP addresses. Enabling a white access control list poses some risks to your services. After a whitelist is enabled, only the IP addresses in the list can access the listener. If you enable a whitelist without adding any IP addresses in the list, all requests are forwarded. • black: Indicates a blacklist. Requests from the IP addresses or CIDR blocks in the selected access control list are not forwarded (that is, they are blocked). It applies to scenarios where an application denies access only from specific IP addresses. If you enable a blacklist without adding any IP addresses to the list, all requests are forwarded. If the value of the AclStatus parameter is on, this parameter is required.

Parameter	Type	Example value	Description
Description	String	A description of the listener	A description of the listener.
DomainExtensions			Domain name extension list.
^L Domain	String	www.example.com	The domain name.
^L DomainExtensionId	String	12	The ID of the domain name extension.
^L ServerCertificateId	String	133444444565	The ID of the certificate corresponding to the domain name.
EnableHttp2	String	off	Indicates whether the HTTP/2 feature is enabled. Valid values: on off. Default value: on
IdleTimeout	Integer	23	The idle connection timeout. Value range: 1 to 60. Default value: 15. Unit: seconds If no request is received during the specified timeout period, SLB temporarily terminates the connection and restarts the connection when the next request is received.
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The request ID.

Parameter	Type	Example value	Description
RequestTimeout	Integer	43	The request timeout. Value range : 1 to 180. Default value: 60. Unit: seconds If no response is received from the backend server during the specified timeout period, SLB stops waiting and sends an HTTP 504 error to the client.
Rules			A list of forwarding rules of the listener.
└Domain	String	www.example.com	The domain name.
└RuleId	String	23	The ID of the forwarding rule.
└RuleName	String	example	The name of the forwarding rule.
└Url	String	/example	The access path.
└VServerGroupId	String	12	The ID of the target VServer group of the forwarding rule.
SecurityStatus	String	on	The security status.

Parameter	Type	Example value	Description
TLSCipherPolicy	String	tls_cipher_policy_1_0	You can only specify the TLSCipherPolicy parameter for guaranteed-performance instances . Each security policy includes the TLS protocol versions that can be selected by HTTPS and the supported cipher suites. Currently, the following four security policies are supported. For more information about their differences, see the introduction to the differences of TLS security policies. · tls_cipher_policy_1_0: Supported TLS versions: TLSv1.0 , TLSv1.1, and TLSv1.2. Supported cipher suites: ECDHE-RSA-AES128-GCM-SHA256 , ECDHE-RSA-AES256-GCM-SHA384, ECDHE-RSA-AES128-SHA256, ECDHE-RSA-AES256-SHA384, AES128-GCM-SHA256, AES256-GCM-SHA384, AES128-SHA256, AES256-SHA256, ECDHE-RSA-AES128-SHA, ECDHE-RSA-AES256-SHA, AES128-SHA, AES256-SHA, and DES-CBC3-SHA . · tls_cipher_policy_1_1: Supported TLS versions: TLSv1.1 and TLSv1.2. Supported cipher suites: ECDHE-RSA-AES128-GCM-SHA256 , ECDHE-RSA-AES256-GCM-SHA384, ECDHE-RSA-AES128-

Parameter	Type	Example value	Description
XForwardedFor_SLBID	String	on	Indicates whether the <code>SLB - ID</code> header field is used to obtain the SLB instance ID. Valid values: on off
XForwardedFor_SLBIP	String	on	Indicates whether the <code>SLB - IP</code> header field is used to obtain the real IP address of a client request. Valid values: on off
XForwardedFor_proto	String	on	Indicates whether the <code>X - Forwarded - Proto</code> header field is used to obtain the listening protocol used by the SLB instance. Valid values: on off

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = DescribeLoadBalancer
HTTPSListenerAttribute
& ListenerPort = 80
& LoadBalancerId = lb-bp1mxu5r8l-aukr35n1k5-r
&< CommonParameters >
```

Response examples

XML format

```
< DescribeLoadBalancer HTTPSListenerAttributeResponse >
  < RequestId > 11f52428-64ed-40f7-98c2-dbb6d0bb0a-d7 </
RequestId >
  < HealthCheckHttpCode > http_2xx , http_3xx </ HealthCheck
HttpCode >
  < HealthCheckTimeout > 5 </ HealthCheck Timeout >
  < ServerCertificateId > 1231579xxx-xxxxx_15db-f6ff26f_19
91415478_2-054196746 </ ServerCertificateId >
  < XForwardedFor_SLBID > off </ XForwardedFor_SLBID >
  < Gzip > on </ Gzip >
  < HealthyThreshold > 3 </ HealthyThreshold >
  < Scheduler > wrr </ Scheduler >
  < StickySession > off </ StickySession >
  < UnhealthyThreshold > 3 </ UnhealthyThreshold >
```

```

< XForwarded For_SLBIP > off </ XForwarded For_SLBIP >
< XForwarded For_proto > off </ XForwarded For_proto >
< Bandwidth >- 1 </ Bandwidth >
< HealthChec kURI >/</ HealthChec kURI >
< VServerGro upId > rsp - 0xiju72xwn r93 </ VServerGro upId >
< HealthChec k > on </ HealthChec k >
< ListenerPo rt > 443 </ ListenerPo rt >
< Status > running </ Status >
< XForwarded For > on </ XForwarded For >
< HealthChec kDomain />
< HealthChec kInterval > 2 </ HealthChec kInterval >
< BackendSer verPort > 443 </ BackendSer verPort >
</ DescribeLo adBalancer HTTPSListe nerAttribu teResponse >

```

JSON format

```

{
  " HealthChec kHttpCode ":" http_2xx , http_3xx ",
  " HealthChec kURI ":" /",
  " VServerGro upId ":" rsp - 0xiju72xwn r93 ",
  " HealthChec kTimeout ":" 5 ,
  " HealthChec k ":" on ",
  " ListenerPo rt ":" 443 ,
  " ServerCert ificateId ":" 1231579xxx xxxxx_15db f6ff26f_19
91415478_2 054196746 ",
  " Status ":" running ",
  " XForwarded For_SLBID ":" off ",
  " Gzip ":" on ",
  " XForwarded For ":" on ",
  " HealthChec kInterval ":" 2 ,
  " HealthChec kDomain ":" ",
  " HealthyThr eshold ":" 3 ,
  " Scheduler ":" wrd ",
  " RequestId ":" 11F52428 - 64ED - 40F7 - 98C2 - DBB6D0BB0A D7 ",
  " StickySess ion ":" off ",
  " UnhealthyT hreshold ":" 3 ,
  " XForwarded For_SLBIP ":" off ",
  " XForwarded For_proto ":" off ",
  " BackendSer verPort ":" 443 ,
  " Bandwidth ":" - 1
}

```

Error codes

[See common error codes.](#)

10.3 CreateLoadBalancerHTTPSListener

Creates an HTTPS listener.



Note:

A newly created listener is in the Stopped state. To start the listener to forward traffic, call [StartLoadBalancerListener](#) after the listener is created.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	CreateLoadBalancerHTPSListener	The name of this action. Value: CreateLoadBalancerHTPSListener
Bandwidth	Integer	Yes	-1	The peak bandwidth of the listener. Valid values: -1 1 to 5120 -1: The value -1 indicates that the bandwidth of an Internet instance that is billed by traffic is not limited. 1 to 510: For an Internet instance that is billed by bandwidth, you can set one peak bandwidth for each listener. However, the sum of the peak bandwidth values of all listeners cannot surpass the peak bandwidth of the SLB instance. For more information, see Share instance bandwidth.
HealthCheck	String	Yes	on	Indicates whether to enable the health check function. Valid values: on off
ListenerPort	Integer	Yes	80	The frontend port used by the SLB instance. Value range: 1 to 65535

Parameter	Type	Required?	Example value	Description
LoadBalancerId	String	Yes	lb-bp1o94dp5i6earr9g6d1l	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs. To query the region ID of an SLB instance, refer to the list of regions and zones or call DescribeRegions .
ServerCertificateId	String	Yes	idkp-123-cn-test-01	The ID of the server certificate.
StickySession	String	Yes	on	Indicates whether to enable session persistence. Valid values: on off
AclId	String	No	123	Optional. The ID of the access control list associated with the listener. If the value of the AclStatus parameter is on, this parameter is required.
AclStatus	String	No	off	Optional. Indicates whether to enable access control. Valid values: on off. Default value: off

Parameter	Type	Required?	Example value	Description
AclType	String	No	white	Optional. The access control type: · white: Indicates a whitelist. Only requests from the IP addresses or CIDR blocks in the selected access control list are forwarded. It applies to scenarios where an application allows access only from specific IP addresses. · black: Indicates a blacklist. Requests from the IP addresses or CIDR blocks in the selected access control list are not forwarded (that is, they are blocked). It applies to scenarios where an application denies access only from specific IP addresses. Enabling a white access control list poses some risks to your services. After a whitelist is configured, only the IP addresses in the list can access the listener. If you enable a whitelist without adding any IP addresses in the list, all requests are forwarded. If you enable a blacklist without adding any IP addresses to the list, all requests are forwarded.

Parameter	Type	Required?	Example value	Description
BackendServerPort	Integer	No	80	Optional. The backend port used by the SLB instance. Value range: 1 to 65535. If the VServerGroupId parameter is not specified, this parameter is required.
CACertificateId	String	No	139a00604ad-cn-east-hangzhou-01	Optional. The ID of the CA certificate. If both the CA certificate and the server certificate are uploaded, two-way authentication is established. If you upload only the server certificate, one-way authentication is established.
Cookie	String	No	B490B5EBF6F3CD402E515D22BCDA1598	Optional. The cookie configured on the backend server. The cookie must be 1 to 200 characters in length. It can only contain ASCII English letters and numbers. It cannot contain commas (,), semicolons (;), or spaces. It cannot begin with a dollar sign (\$). When the value of StickySession is on and the value of StickySessionType is server, this parameter is required.

Parameter	Type	Required?	Example value	Description
CookieTimeout	Integer	No	500	Optional. Timeout period of the cookie. Value range: 1 to 86400. Unit: seconds This parameter is required when the value of StickySession is on and the value of StickySessionType is insert.
Description	String	No	Create a listener	Optional. A description of the listener to be created. The description must be 1 to 80 characters in length and can contain letters, numbers, Chinese characters, hyphens (-), slashes (/), periods (.), and underscores (_). Chinese characters are supported.
EnableHttp2	String	No	off	Optional. Indicates whether to enable the HTTP/2 feature. Valid values: on off. Default value: on
Gzip	String	No	on	Optional. Indicates whether to enable Gzip compression to compress a specific file type. Valid values: on off. Default value: on

Parameter	Type	Required?	Example value	Description
HealthCheckConnectPort	Integer	No	8080	Optional. The port used for health checks. Value range: 1 to 65535
HealthCheckDomain	String	No	\$_ip	Optional. The domain name used for health checks. Valid values: \$_ip: the private IP address of the backend server. If the IP address is specified or this parameter is not specified, SLB uses private IP addresses of backend servers as the domain names for health checks. domain: The domain name must be 1 to 80 characters in length, and can only contain letters, numbers, periods (.), and hyphens (-).
HealthCheckHttpCode	String	No	http_2xx, http_3xx	Optional. The HTTP status code indicating that the health check is normal. Separate multiple HTTP status codes by commas (,). Default value: http_2xx. Valid values: http_2xx http_3xx http_4xx http_5xx

Parameter	Type	Required?	Example value	Description
HealthCheckInterval	Integer	No	5	Optional. The time interval between two consecutive health checks. Value range: 1 to 50. Unit: seconds
HealthCheckTimeout	Integer	No	3	Optional. The length of time to wait for the response from the health check. If the backend ECS instance does not send a correct response within the specified time, the health check fails. Value range: 1 to 300. Unit: seconds  Note: If the value of HealthCheckTimeout is smaller than that of HealthCheckInterval, the parameter HealthCheckTimeout is invalid, and the timeout is set to the value of HealthCheckInterval.
HealthCheckURI	String	No	/test/index.html	Optional. The URI used for health checks.
HealthyThreshold	Integer	No	4	Optional. The number of consecutive successes of health checks before a backend server is declared as healthy (from failure to success). Value range: 2 to 10

Parameter	Type	Required?	Example value	Description
IdleTimeout	Integer	No	12	Optional. The idle connection timeout. Value range: 1 to 60. Default value: 15. Unit: seconds If no request is received during the specified timeout period, SLB temporarily terminates the connection and restarts the connection when the next request is received.
RequestTimeout	Integer	No	23	Optional. The request timeout. Value range: 1 to 180. Default value: 60. Unit: seconds. If no response is received from the backend server during the specified timeout period, SLB stops waiting and sends an HTTP 504 error to the client.

Parameter	Type	Required?	Example value	Description
Scheduler	String	No	wrr	Optional. The algorithm used to distribute traffic. Valid values: • wrr (default): Backend servers with higher weights receive more requests than those with smaller weights. • wlc: A server with a higher weight receives more requests. When the weight values of two backend servers are the same, the server with a smaller number of connections is more likely to be polled. • rr: Requests are evenly and sequentially distributed to backend servers.

Parameter	Type	Required?	Example value	Description
StickySessionType	String	No	on	Optional. The method used to handle the cookie. If the value of StickySession is on, this parameter is required. Valid values: insert server · insert: Insert a cookie. SLB adds a cookie to the first response from the backend server (that is, it inserts SERVERID in the HTTP/HTTPS response packet). Then, the next request contains the cookie and the listener distributes the request to the same backend server. · server: Rewrite the cookie. SLB overwrites the original cookie when a new cookie is set. The next time the client carries the new cookie to access SLB, the listener distributes the request to the previously recorded backend server.

Parameter	Type	Required?	Example value	Description
TLSCipherPolicy	String	No	tls_cipher_policy_1_1	You can only specify the TLSCipherPolicy parameter for guaranteed-performance instances. Each security policy includes the TLS protocol versions that can be selected by HTTPS and the supported cipher suites. Currently, the following four security policies are supported . For more information about their differences, see the introduction to the differences of TLS security policies. · tls_cipher_policy_1_0: - Supported TLS versions : TLSv1.0, TLSv1.1, and TLSv1.2. - Supported cipher suites : ECDHE-RSA-AES128-GCM-SHA256, ECDHE-RSA-AES256-GCM-SHA384 , ECDHE-RSA-AES128-SHA256, ECDHE-RSA-AES256-SHA384, AES128-GCM-SHA256, AES256-GCM-SHA384, AES128-SHA256, AES256-SHA256, ECDHE-RSA-AES128-SHA, ECDHE-RSA-AES256-SHA, AES128-SHA, AES256-SHA , and DES-CBC3-SHA. · tls_cipher_policy_1_1: - Supported TLS versions: TLSv1.1 and TLSv1.2. - Supported encryption algorithm suites: ECDHE-RSA-AES128-GCM-SHA256 , ECDHE-RSA-AES256-GCM-SHA384, ECDHE

Parameter	Type	Required?	Example value	Description
UnhealthyThreshold	Integer	No	4	Optional. The number of consecutive failures of health checks before a backend server is declared as unhealthy (from success to failure). Value range: 2 to 10
VServerGroupId	String	No	rsp-cige6j5e7p	Optional. The ID of the VServer group.
XForwardedFor	String	No	on	Optional. Indicates whether to obtain real IP addresses of client requests by using <code>X-Forwarded-For</code> . Valid values: on off. Default value: on
XForwardedFor_SLBID	String	No	on	Optional. Indicates whether to use the SLB-ID header field to obtain the ID of the SLB instance. Valid values: on off. Default value: off
XForwardedFor_SLBIP	String	No	on	Optional. Indicates whether to use the SLB-IP header field to obtain the real IP address of a visitor. Valid values: on off. Default value: off

Parameter	Type	Required?	Example value	Description
XForwardedFor_proto	String	No	on	Optional. Indicates whether to use the X-Forwarded-Proto header field to obtain the listener protocol of the SLB instance. Valid values: on off. Default value: off

Response parameters

Parameter	Type	Example value	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request.

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = CreateLoad BalancerHT
TPSListene r
& Bandwidth = - 1
& HealthChec k = on
& ListenerPo rt = 80
& LoadBalanc erId = lb - bp1o94dp5i 6earr9g6d1 l
& ServerCert ificateId = idkp - 123 - cn - test - 01
& StickySess ion = on
& < CommonPara meters >
```

Response examples

XML format

```
< CreateLoad BalancerHT TPSListene rResponse >
  < RequestId > CEF72CEB - 54B6 - 4AE8 - B225 - F876FF7BA9 84 </
    RequestId >
</ CreateLoad BalancerHT TPSListene rResponse >
```

JSON format

```
{
  " RequestId ":" CEF72CEB - 54B6 - 4AE8 - B225 - F876FF7BA9 84 "
```

```
}
```

Error codes

[See common error codes.](#)

11 Listeners

11.1 StartLoadBalancerListener

Starts a listener.

Before you call this API, note the following:

- The API can be called only when the listener is in the stopped state.
- After this API is called successfully, the status of the listener changes to starting.
- If the status of the SLB instance to which the listener belongs is locked, this API cannot be called.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	StartLoadBalancerListener	The name of this action. Value: StartLoadBalancerListener
ListenerPort	Integer	Yes	80	The frontend port used by the SLB instance. Value range: 1 to 65535
LoadBalancerId	String	Yes	lb-bp13jaf5ql i5xmgl1miup	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The region ID the SLB instance. You can query the region ID by calling DescribeRegions .

Response parameters

Parameter	Type	Example value	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = StartLoadBalancerListener
& ListenerPort = 80
& LoadBalancerId = lb-bp13jaf5ql-i5xmgl1miu-p
&< CommonParameters >
```

Response examples

XML format

```
< StartLoadBalancerListenerResponse >
  < RequestId > CC000321 - 00F2 - 49B8 - 9BCA - 60D8224149 60 </
  RequestId >
</ StartLoadBalancerListenerResponse >
```

JSON format

```
{
  "RequestId": "CC000321 - 00F2 - 49B8 - 9BCA - 60D8224149 60 "
}
```

Error codes

[See common error codes.](#)

11.2 StopLoadBalancerListener

You can call the StopLoadBalancerListener API to stop a listener.

Before you call the API, note the following:

- After the API is successfully called, the listener changes to the stopped status.
- If the status of the SLB instance to which the listener belongs is locked, the API cannot be called.



Note:

If you stop the listener, your services will be disrupted. Exercise caution when performing this action.

Debug

Click [here](#) to perform a debug operation in OpenAPI Explorer and automatically generate an SDK code example.

Request parameters

Name	Type	Required?	Example value	Description
Action	String	Yes	StopLoadBalancerListener	The action to perform. Valid value:StopLoadBalancerListener
ListenerPort	Integer	Yes	80	The frontend port used by the SLB instance. Valid values:1–65535
LoadBalancerId	String	Yes	lb-bp13jaf5ql i5xmgl1miup	The ID of the SLB instance
RegionId	String	Yes	cn-hangzhou	The region to which the SLB instance belongs. You can query the region ID by referring to the list of regions and zones or by calling the DescribeRegions API.

Response parameters

Name	Type	Example value	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = StopLoadBalancerListener
& ListenerPort = 80
& LoadBalancerId = lb-bp13jaf5ql-i5xmgl1miu-p
&< Common request parameters >
```

Normal response examples

XML format

```
< StopLoadBalancerListenerStatus Response >
  < RequestId > 21D2B318 - 650E - 4B0B - A3B5 - 693D462247 B3 </
    RequestId >
</ StopLoadBalancerListenerStatus Response >
```

JSON format

```
{
  "RequestId ":" 21D2B318 - 650E - 4B0B - A3B5 - 693D462247 B3 "
```

Error response example

JSON format

```
{
  "Message ":" The specified parameter is not valid.",
  "RequestId ":" 0669D684 - 69D8 - 408E - A4FA - B9011E0F4E 66 ",
  "HostId ":" slb-pop.aliyuncs.com ",
  "Code ":" InvalidParameter "
```

Error codes

[See common error codes.](#)

11.3 DeleteLoadBalancerListener

Deletes a listener.



Note:

Only a listener in the stopped or running state can be deleted.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DeleteLoadBalancerListener	The name of this action. Value: DeleteLoadBalancerListener
ListenerPort	Integer	Yes	80	The frontend port used by the SLB instance. Value range: 1 to 65535
LoadBalancerId	String	Yes	lb-bp13jaf5ql i5xmgl1miup	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request.

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = DeleteLoad BalancerLi stener
& ListenerPo rt = 80
& LoadBalanc erId = lb - bp13jaf5ql i5xmgl1miu p
&< CommonPara meters >
```

Response examples

XML format

```
< DeleteLoad BalancerLi stenerResp onse >
  < RequestId > 791D8B68 - AE0F - 4174 - AF54 - 088C8B3C5D 54 </
  RequestId >
```

```
</ DeleteLoad BalancerLi stenerResp onse >
```

JSON format

```
{  
  " RequestId ":" 791D8B68 - AE0F - 4174 - AF54 - 088C8B3C5D 54 "  
}
```

Error codes

[See common error codes.](#)

12 Backend servers

12.1 SetBackendServers

Sets the weights of backend servers.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	SetBackendServers	The name of this action. Value: SetBackendServers
BackendServers	String	Yes	[{"ServerId": "vm-233", "Weight": "0"}, {"ServerId": "vm-234", "Weight": "0"}]	The list of backend servers to be added.  Note: Only backend servers (ECS instances) in the running state can be added. You can add up to 20 backend servers at a time.
LoadBalancerId	String	Yes	lb-bp1qjwo61pqz3ahlvt0mw	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs.

Response parameters

Parameter	Type	Example value	Description
LoadBalancerId	String	139a00604ad-cn-east-hangzhou-01	The ID of the SLB instance.
BackendServers			A list of backend servers.
└ServerId	String	vm-234	The ID of the ECS instance.
└Weight	String	100	The weight of the backend server.
└Description	String	Backend server	A description of the backend server.
└Type	String	ecs	The backend server type. Valid values: - ecs: ECS instance (default) - eni: Elastic Network Interface (ENI)
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = SetBackendServers
& LoadBalancerId = lb - bp1qjwo6lp qz3ahltv0m w
& < CommonParameters >
```

Response examples

XML format

```
< SetBackendServersResponse >
  < RequestId > 365F4154 - 92F6 - 4AE4 - 92F8 - 7FF34B5407 10 </
RequestId >
  < LoadBalancerId > 139a00604ad - cn - east - hangzhou - 01 </
LoadBalancerId >
  < BackendServers >
    < BackendServer >
      < ServerId > eni - 231 </ ServerId >
      < Weight > 100 </ Weight >
```

```

    < Type > eni </ Type >
  </ BackendServer >
  < BackendServer >
    < ServerId > eni - 233 </ ServerId >
    < Weight > 100 </ Weight >
    < Type > eni </ Type >
  </ BackendServer >
</ BackendServers >
</ SetBackendServersResponse >

```

JSON format

```

{
  "BackendServers": {
    "BackendServer": [
      {
        "ServerId": "eni - 231 ",
        "Weight": "100 ",
        "Type": "eni "
      },
      {
        "ServerId": "eni - 233 ",
        "Weight": "100 ",
        "Type": "eni "
      }
    ]
  },
  "RequestId": "365F4154 - 92F6 - 4AE4 - 92F8 - 7FF34B5407 10 ",
  "LoadBalancerId": "139a00604a d - cn - east - hangzhou - 01 "
}

```

Error codes

[See common error codes.](#)

12.2 AddBackendServers

Adds backend servers.



Note:

If two or more same ECS instances are added in a request, only the first ECS instance is added.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	AddBackendServers	The name of this action. Value: AddBackendServers
BackendServers	String	Yes	[{"ServerId":"eni-xxxxxxxxxx","Weight":100,"Type":"eni","":192.168.11.1"}, {"ServerId":"eni-xxxxxxxxxx","Weight":100,"Type":"eni","":192.168.11.2"}]	The list of backend servers to be added. The list must contain the following parameters: • ServerId: the ID of the ECS instance. • Weight: the weight of the backend server. Value range : 0 to 100. Default value: 100. If the weight value of a backend server is 0, no request is distributed to this server. • Type: the type of the backend server. Valid values: - ecs: ECS instance (default) - eni: Elastic Network Interface (ENI)  Note: Only backend servers (ECS instances) in the running state can be added. You can add up to 20 backend servers at a time.
LoadBalancerId	String	Yes	lb-2ze7o5h52g02kkzz*****	The ID of the SLB instance.

Parameter	Type	Required?	Example value	Description
RegionId	String	Yes	cn-beijing	The ID of the region to which the SLB instance belongs. To query the region ID, call the DescribeRegions API.

Response parameters

Parameter	Type	Example value	Description
LoadBalancerId	String	lb-2ze7o5h52g02kkzz****	The ID of the SLB instance.
BackendServers			A list of backend servers.
└ServerId	String	i-2zej4lxhjoq1icu*****	The ECS instance ID or ENI instance ID.
└Weight	String	100	The weight of the backend server. Value range: 0 to 100 Default value: 100. If the value is 0, no requests are forwarded to the backend server.
└Description	String	Backend server	A description of the backend server.
└Type	String	ecs	The backend server type. - ecs: ECS instance (Default) - eni: Elastic Network Interface (ENI)
RequestId	String	34B82C81-F13B-4EEB-99F6-A048C67CC830	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = AddBackend Servers
& LoadBalanc erId = lb - 2ze7o5h52g 02kkzz *****
&< CommonPara meters >
```

Response examples

XML format

```
< AddBackend ServersRes ponse >
  < BackendSer vers >
    < BackendSer ver >
      < ServerId > i - 2zej4lxhjo qlicu *****</ ServerId >
      < Weight > 100 </ Weight >
      < Type > ecs </ Type >
    </ BackendSer ver >
    < BackendSer ver >
      < ServerId > i - 2ze1u9ywul p5pbv *****</ ServerId >
      < Weight > 100 </ Weight >
      < Type > ecs </ Type >
    </ BackendSer ver >
  </ BackendSer vers >
  < RequestId > 34B82C81 - F13B - 4EEB - 99F6 - A048C67CC8 30 </
RequestId >
  < LoadBalanc erId > lb - 2ze7o5h52g 02kkzz *****</ LoadBalanc
erId >
</ AddBackend ServersRes ponse >
```

JSON format

```
{
  " BackendSer vers ":{
    " BackendSer ver ":[
      {
        " ServerId ":" i - 2zej4lxhjo qlicue ****",
        " Weight ": 100 ,
        " Type ":" ecs "
      },
      {
        " ServerId ":" i - 2ze1u9ywul p5pbvv ****",
        " Weight ": 100 ,
        " Type ":" ecs "
      }
    ]
  },
  " RequestId ":" 34B82C81 - F13B - 4EEB - 99F6 - A048C67CC8 30 ",
  " LoadBalanc erId ":" lb - 2ze7o5h52g 02kkzze ****"
}
```

Error codes

HTTP status code	Error code	Error message	Description
400	InvalidParameter	The specified load balancer does not support the network type of the ECS instance.	SLB instances do not support ECS instances of the specified network type. Please change the ECS network type and try again.

[See common error codes.](#)

12.3 RemoveBackendServers

Removes backend servers.



Note:

If the backend server to be removed does not exist in the specified backend server group, the action is ignored and no error will be returned.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	RemoveBackendServers	The name of this action. Value: RemoveBackendServers
BackendServers	String	Yes	[{"ServerId":"i-2zej4lxhjoq1licue6kup","Weight":"100"}, {"ServerId":"i-2ze1u9ywulp5pbvvc7hv","Weight":"100"}]	The backend servers to be removed.  Note: Up to 20 backend servers can be removed at a time.

Parameter	Type	Required?	Example value	Description
LoadBalancerId	String	Yes	lb-bp1qjwo61pqz3ahl*****	The ID of the SLB instance.
RegionId	String	Yes	cn-east-hangzhou-01	The ID of the region to which the SLB instance belongs.

Response parameters

Parameter	Type	Example value	Description
LoadBalancerId	String	139a00604ad-cn-east-hangzhou-01	The ID of the SLB instance.
BackendServers			A list of backend servers.
└Description	String	Backend server	A description of the backend server group.
└ServerId	String	vm-232	The backend server name ID, which is the ECS instance ID.
└Type	String	ecs	The backend server type. Valid values: - ecs: ECS instance (default) - eni: Elastic Network Interface (ENI)
└Weight	Integer	100	The weight of the backend server. Value range: 0 to 100
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = RemoveBack endServers
& BackendSer vers =[{" ServerId ":" i - 2zej4lxhjo qlieue6kup ","
Weight ":" 100 "},{ " ServerId ":" i - 2ze1u9ywul p5pbvvc7hv ","
Weight ":" 100 "}]
& LoadBalanc erId = lb - bp1qjwo61p qz3ahl *****
&< CommonPara meters >
```

Response examples

XML format

```
< RemoveBack endServers Response >
  < RequestId > 365F4154 - 92F6 - 4AE4 - 92F8 - 7FF34B5407 10 </
RequestId >
  < LoadBalanc erId > 139a00604a d - cn - east - hangzhou - 01 </
LoadBalanc erId >
  < BackendSer vers >
    < BackendSer ver >
      < ServerId > vm - 231 </ ServerId >
      < Weight > 100 </ Weight >
    </ BackendSer ver >
    < BackendSer ver >
      < ServerId > vm - 232 </ ServerId >
      < Weight > 100 </ Weight >
    </ BackendSer ver >
  </ BackendSer vers >
</ RemoveBack endServers Response >
```

JSON format

```
{
  " BackendSer vers ":{
    " BackendSer ver ":[
      {
        " ServerId ":" vm - 233 ",
        " Weight ": 100
      },
      {
        " ServerId ":" vm - 234 ",
        " Weight ": 100
      }
    ]
  },
  " RequestId ":" 365F4154 - 92F6 - 4AE4 - 92F8 - 7FF34B5407 10 ",
  " LoadBalanc erId ":" 139a00604a d - cn - east - hangzhou - 01 "
}
```

Error codes

[See common error codes.](#)

12.4 DescribeHealthStatus

Queries the health status of one or more backend servers.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeHealthStatus	The name of this action. Value: DescribeHealthStatus
LoadBalancerId	String	Yes	lb-bp1qjwo61pqz3ahlvt0mw	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou-d	The ID of the region to which the SLB instance belongs.
ListenerPort	Integer	No	80	Optional. The frontend port used by the SLB instance. Value range: 1 to 65535  Note: If you do not set this parameter, the health check status of all ports is returned.
ListenerProtocol	String	No	https	Optional. The frontend protocol used by the SLB instance.

Response parameters

Parameter	Type	Example value	Description
BackendServers			A list of backend servers.
ServerId	String	vm-234	The ECS instance ID or ENI ID.

Parameter	Type	Example value	Description
<code>ServerHealthStatus</code>	String	abnormal	The health status of a backend server: · normal: The backend server is healthy. · abnormal: The backend server is unhealthy. · unavailable: The health check is not completed.
<code>EniHost</code>	String	192.168.0.1	The IP address of an ENI.
<code>ListenerPort</code>	Integer	80	The frontend port used by the SLB instance.
<code>Port</code>	Integer	70	The backend port used by the SLB instance.
<code>Protocol</code>	String	https	The frontend protocol used by the SLB instance.
<code>ServerIp</code>	String	192.168.0.2	The IP address of an ECS instance.
<code>Type</code>	String	ecs	The backend server type. Valid values: · ecs: ECS instance (default) · eni: Elastic Network Interface (ENI)
<code>RequestId</code>	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = DescribeHealthStatus
& LoadBalancerId = lb - bp1qjwo6lp qz3ahltv0m w
```

```
&< CommonParameters >
```

Response examples

XML format

```
< DescribeHealthStatus Response >
  < RequestId > 365F4154 - 92F6 - 4AE4 - 92F8 - 7FF34B5407 10 </
RequestId >
  < BackendServers >
    < BackendServer >
      < ServerId > vm - 233 </ ServerId >
      < ServerHealthStatus > normal </ ServerHealthStatus >
    </ BackendServer >
    < BackendServer >
      < ServerId > vm - 234 </ ServerId >
      < ServerHealthStatus > abnormal </ ServerHealthStatus >
    </ BackendServer >
  </ BackendServers >
</ DescribeHealthStatus Response >
```

JSON format

```
{
  "RequestId ":" 196EC328 - B566 - 4226 - B435 - 8697723205 EF ",
  "BackendServers ":{
    "BackendServer ":[
      {
        "ServerId ":" i - bp1do02x7n 4nua4k72um ",
        "ServerHealthStatus ":" abnormal ",
        "Port ": 80 ,
        "ListenerPort ": 443
      }
    ]
  }
}
```

Error codes

[See common error codes.](#)

13 VServer groups

13.1 DescribeVServerGroupAttribute

Queries the details of a VServer group.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeVServerGroupAttribute	The name of this action. Value: DescribeVServerGroupAttribute
RegionId	String	Yes	cn-hangzhou-d	The ID of the region to which the SLB instance belongs.
VServerGroupId	String	Yes	rsp-cige6j5e7p	The ID of the VServer group to be queried.

Response parameters

Parameter	Type	Example value	Description
VServerGroupId	String	rsp-cige6j5e7p	The ID of the VServer group.
VServerGroupName	String	Group1	The name of the VServer group.
BackendServers			A list of backend servers.
 ServerId	String	vm-233	The ECS instance ID.

Parameter	Type	Example value	Description
<code>Port</code>	Integer	90	The port used by the backend server.
<code>Weight</code>	Integer	100	The weight of the backend server.
<code>Description</code>	String	A description of the VServer group	A description of the VServer group.
<code>Type</code>	String	ecs	The backend server type. Valid values: - ecs: ECS instance (default) - eni: Elastic Network Interface (ENI)
<code>LoadBalancerId</code>	String	lb-jfakd***	The ID of the SLB instance.
<code>RequestId</code>	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = DescribeVS   erverGroup
Attribute
& RegionId = cn - hangzhou
& VServerGro   upId = rsp - cige6j5e7p
&< CommonPara   meters >
```

Response examples

XML format

```
< DescribeVS   erverGroup   AttributeR   esponse >
  < RequestId > 9DEC9C28 - AB05 - 4DDF - 9A78 - 6B08EC9CE1   8C </
  RequestId >
  < VServerGro   upId > rsp - cige6j5e7p </ VServerGro   upId >
  < VServerGro   upName > Group1 </ VServerGro   upName >
  < BackendSer   vers >
    < BackendSer   ver >
      < ServerId > vm - 232 </ ServerId >
      < Port > 80 </ Port >
      < Weight > 100 </ Weight >
    </ BackendSer   ver >
  < BackendSer   ver >
```

```

    < ServerId > vm - 233 </ ServerId >
    < Port > 90 </ Port >
    < Weight > 100 </ Weight >
  </ BackendSer ver >
</ BackendSer vers >
</ DescribeVS erverGroup AttributeR esponse >

```

JSON format

```

{
  " BackendSer vers ":{
    " BackendSer ver ":[
      {
        " ServerId ":" vm - 233 ",
        " Port ":" 80 ",
        " Weight ":" 100 "
      },
      {
        " ServerId ":" vm - 232 ",
        " Port ":" 90 ",
        " Weight ":" 100 "
      }
    ]
  },
  " RequestId ":" 9DEC9C28 - AB05 - 4DDF - 9A78 - 6B08EC9CE1 8C ",
  " VServerGro upId ":" rsp - cige6j5e7p ",
  " VServerGro upName ":" Group1 "
}

```

Error codes

See [common error codes](#).

13.2 CreateVServerGroup

Creates a VServer group.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	CreateVServerGroup	The name of this action. Value: CreateVServerGroup
LoadBalancerId	String	Yes	lb-bp1qjwo61pqz3ahlv0mw	The ID of the SLB instance.

Parameter	Type	Required ?	Example value	Description
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs.
BackendServers	String	No	[{'ServerId':'vm-233','Port':'80','Weight':'100'}, {'ServerId':'vm-232','Port':'90','Weight':'100'}, {'ServerId':'vm-231','Port':'70','Weight':'100'}]	Optional. The list of backend servers to be added to the VServer group. The value is a JSON string with the JsonList structure. For each request, the list can contain up to 20 backend servers. • ServerId: the backend server ID, which is the ECS instance ID. It is a required parameter of string type. • Port: the port used by the backend server. It is a required parameter of integer type with the value range of 1 to 65535. • Weight: the weight of the backend server. It is a required parameter of integer type with the value range of 0 to 100.
VServerGroupName	String	No	Group1	Optional. The name of the VServer group.

Response parameters

Parameter	Type	Example value	Description
VServerGroupId	String	rsp-cige6j5e7p	The ID of the VServer group.
BackendServers			A list of backend servers.

Parameter	Type	Example value	Description
<code>ServerId</code>	String	vm-231	The ECS instance ID or ENI ID.
<code>Port</code>	Integer	70	The port used by the backend server.
<code>Weight</code>	Integer	100	The weight of the backend server.
<code>Description</code>	String	VServer group	A description of the VServer group.
<code>Type</code>	String	Type	The backend server type. Valid values: - ecs: ECS instance (default) - eni: Elastic Network Interface (ENI)
<code>RequestId</code>	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = CreateVServerGroup
& LoadBalancerId = lb-bp1qjwo6lp-qz3ahlv0mw
& RegionId = cn-hangzhou
&< CommonParameters >
```

Response examples

XML format

```
< CreateVServerGroupResponse >
  < RequestId > 9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C </
RequestId >
  < VServerGroupId > rsp-cige6j5e7p </ VServerGroupId >
  < BackendServers >
    < BackendServer >
      < ServerId > vm-233 </ ServerId >
      < Port > 80 </ Port >
      < Weight > 100 </ Weight >
    </ BackendServer >
    < BackendServer >
      < ServerId > vm-232 </ ServerId >
      < Port > 90 </ Port >
      < Weight > 100 </ Weight >
    </ BackendServer >
  </ BackendServers >
</ CreateVServerGroupResponse >
```

```

    < BackendSer ver >
      < ServerId > vm - 231 </ ServerId >
      < Port > 70 </ Port >
      < Weight > 100 </ Weight >
    </ BackendSer ver >
  </ BackendSer vers >
</ CreateVServerGroupResponse >

```

JSON format

```

{
  "BackendServers": {
    "BackendServer": [
      {
        "ServerId": "vm - 233 ",
        "Port": " 80 ",
        "Weight": " 100 "
      },
      {
        "ServerId": "vm - 232 ",
        "Port": " 90 ",
        "Weight": " 100 "
      },
      {
        "ServerId": "vm - 231 ",
        "Port": " 70 ",
        "Weight": " 100 "
      }
    ]
  },
  "RequestId": " 9DEC9C28 - AB05 - 4DDF - 9A78 - 6B08EC9CE1 8C ",
  "VServerGroup": " rsp - cige6j5e7p "
}

```

Error codes

[See common error codes.](#)

13.3 AddVServerGroupBackendServers

Adds backend servers to a specified VServer group.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	AddVServerGroupBackendServers	The name of this action. Value: AddVServerGroupBackendServers
BackendServers	String	Yes	[{'ServerId':'vm-233','Port':'80','Weight':'100'}, {'ServerId':'vm-232','Port':'90','Weight':'100'}, {'ServerId':'vm-231','Port':'70','Weight':'100'}]	The list of backend servers to be added. Up to 20 backend servers can be added through one API call. The list of backend servers requires the following parameters: • ServerId: the ECS instance ID. • Port: the port used by the backend server. Value range : 1 to 65535 • Weight: the weight of the backend server. Value range: 0 to 100. Default value: 100. If the value is 0, no requests are forwarded to the backend server. • Type: the backend server type. Valid values: - ecs: ECS instance (default) - eni: Elastic Network Interface (ENI)
RegionId	String	Yes	cn-hangzhou-d	The ID of the region to which the SLB instance belongs.
VServerGroupId	String	Yes	rsp-cige6j5e7p	The ID of the VServer group.

Response parameters

Parameter	Type	Example value	Description
VServerGroupId	String	rsp-cige6j5e7p	The ID of the VServer group.
BackendServers			A list of backend servers.
└ServerId	String	vm-231	The ECS instance ID or ENI ID.
└Port	Integer	70	The port used by the backend server.
└Weight	Integer	100	The weight of the backend server.
└Description	String	A description of the VServer group	A description of the VServer group.
└Type	String	ecs	The backend server type. Valid values: - ecs: ECS instance (default) - eni: Elastic Network Interface (ENI)
RequestId	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.

Examples

Request example

```

http ( s )://[ Endpoint ]/? Action = AddVServer GroupBackendServers
& BackendServers =[{ ' ServerId ':' vm - 233 ',' Port ':' 80 ','
Weight ':' 100 '},{ ' ServerId ':' vm - 232 ',' Port ':' 90 ',' Weight
':' 100 '},{ ' ServerId ':' vm - 231 ',' Port ':' 70 ',' Weight ':'
100 '}]
& RegionId = cn - hangzhou
& VServerGroupId = rsp - cige6j5e7p
&< CommonParameters >

```

Response examples

XML format

```
< AddVServer GroupBacke ndServersR esponse >
  < RequestId > 9DEC9C28 - AB05 - 4DDF - 9A78 - 6B08EC9CE1 8C </
  RequestId >
  < VServerGro upId > rsp - cige6j5e7p </ VServerGro upId >
  < BackendSer vers >
    < BackendSer ver >
      < ServerId > vm - 233 </ ServerId >
      < Port > 80 </ Port >
      < Weight > 100 </ Weight >
    </ BackendSer ver >
    < BackendSer ver >
      < ServerId > vm - 232 </ ServerId >
      < Port > 90 </ Port >
      < Weight > 100 </ Weight >
    </ BackendSer ver >
    < BackendSer ver >
      < ServerId > vm - 231 </ ServerId >
      < Port > 70 </ Port >
      < Weight > 100 </ Weight >
    </ BackendSer ver >
  </ BackendSer vers >
</ AddVServer GroupBacke ndServersR esponse >
```

JSON format

```
{
  " AddVServer GroupBacke ndServers ":{
    " BackendSer vers ":{
      " BackendSer ver ":[
        {
          " ServerId ":" vm - 233 ",
          " Port ":" 80 ",
          " Weight ":" 100 "
        },
        {
          " ServerId ":" vm - 232 ",
          " Port ":" 90 ",
          " Weight ":" 100 "
        },
        {
          " ServerId ":" vm - 231 ",
          " Port ":" 70 ",
          " Weight ":" 100 "
        }
      ]
    },
    " RequestId ":" 9DEC9C28 - AB05 - 4DDF - 9A78 - 6B08EC9CE1 8C ",
    " VServerGro upId ":" rsp - cige6j5e7p "
  }
}
```

Error codes

[See common error codes.](#)

13.4 SetVServerGroupAttribute

Modifies the configurations of a VServer group.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	SetVServerGroupAttribute	The name of this action. Value: SetVServerGroupAttribute
RegionId	String	Yes	cn-hangzhou-d	The ID of the region to which the SLB instance belongs.
VServerGroupId	String	Yes	rsp-cige6j5e7p	The ID of the VServer group.
BackendServers	String	No	[{'ServerId':'vm-233','Port':'80','Weight':'100'}, {'ServerId':'vm-232','Port':'90','Weight':'100'}, {'ServerId':'vm-231','Port':'70','Weight':'100'}]	Optional. A list of the backend servers in the VServer group. Up to 20 backend servers can be added through one API call.
VServerGroupName	String	No	Group1	Optional. The name of the VServer group.

Response parameters

Parameter	Type	Example value	Description
VServerGroupId	String	rsp-cige6j5e7p	The ID of the VServer group.

Parameter	Type	Example value	Description
VServerGroupUpName	String	Group1	The name of the VServer group.
BackendServers			A list of backend servers.
└ServerId	String	vm-231	The ECS instance ID or ENI ID.
└Port	Integer	70	The port used by the backend server.
└Weight	Integer	100	The weight of the backend server.
└Description	String	A description of the VServer group	A description of the VServer group.
└Type	String	ecs	The backend server type. Valid values: - ecs: ECS instance (default) - eni: Elastic Network Interface (ENI)
RequestId	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = SetVServerGroupAttribute
& RegionId = cn - hangzhou
& VServerGroupId = rsp - cige6j5e7p
& < CommonParameters >
```

Response examples

XML format

```
< SetVServerGroupAttribute >
  < BackendServers >
    < BackendServer >
      < ServerId > i - bp1ek6yd7j vkxk5y1 ***** </ ServerId >
      < Port > 80 </ Port >
      < Weight > 100 </ Weight >
```

```

    < Type > ecs </ Type >
  </ BackendSer ver >
</ BackendSer vers >
< RequestId > A4FDF333 - F904 - 4540 - 88FC - ED6F87AEFF CB </
RequestId >
  < VServerGro upId > rsp - bp1d2e3qe1 *****</ VServerGro upId >
  < VServerGro upName > test1 </ VServerGro upName >
</ SetVServer GroupAttri bute >

```

JSON format

```

{
  " RequestId ":" A4FDF333 - F904 - 4540 - 88FC - ED6F87AEFF CB ",
  " BackendSer vers ":{
    " BackendSer ver ":[
      {
        " ServerId ":" i - bp1ek6yd7j vkx *****",
        " Port ": 80 ,
        " Weight ": 100 ,
        " Type ":" ecs "
      }
    ]
  },
  " VServerGro upId ":" rsp - bp1d2e3 *****",
  " VServerGro upName ":" test1 "
}

```

Error codes

[See common error codes.](#)

13.5 RemoveVServerGroupBackendServers

Removes backend servers from a specified VServer group.



Note:

If a backend server specified in the BackendServers parameter does not exist in the specified VServer group, it is ignored and no error is returned.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	RemoveVServerGroupBackendServers	The name of this action. Value: RemoveVServerGroupBackendServers
BackendServers	String	Yes	[{'ServerId':'vm-233','Port':80},{'ServerId':'vm-232','Port':90'}]	The list of backend servers to be removed from the VServer group. Up to 20 backend servers can be removed through one API call.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs.
VServerGroupId	String	Yes	rsp-cige6j5e7p	The ID of the VServer group.

Response parameters

Parameter	Type	Example value	Description
VServerGroupId	String	rsp-cige6j5e7p	The ID of the VServer group.
BackendServers			A list of backend servers in the VServer group.
└ServerId	String	vm-230	The ECS instance ID or ENI ID.
└Port	Integer	80	The port used by the backend server.
└Weight	Integer	100	The weight of the backend server.

Parameter	Type	Example value	Description
Description	String	A description of the VServer group	A description of the VServer group.
Type	String	ecs	The backend server type. Valid values: - ecs: ECS instance (default) - eni: Elastic Network Interface (ENI)
RequestId	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = RemoveVServerGroupBackendServers
& BackendServers =[{ ' ServerId ':' vm - 233 ', ' Port ':' 80 ' },{ '
ServerId ':' vm - 232 ', ' Port ':' 90 '}]
& RegionId = cn - hangzhou
& VServerGroupUpId = rsp - cige6j5e7p
&< CommonParameters >
```

Response examples

XML format

```
< RemoveVServerGroupBackendServersResponse >
  < RequestId > 9DEC9C28 - AB05 - 4DDF - 9A78 - 6B08EC9CE1 8C </
RequestId >
  < VServerGroupUpId > rsp - cige6j5e7p </ VServerGroupUpId >
  < BackendServers >
    < BackendServer >
      < ServerId > vm - 231 </ ServerId >
      < Port > 70 </ Port >
      < Weight > 100 </ Weight >
      < Type > ecs </ Type >
    </ BackendServer >
  </ BackendServers >
</ RemoveVServerGroupBackendServersResponse >
```

JSON format

```
{
  " RemoveVServerGroupBackendServersResponse ":{
    " BackendServers ":{
      " BackendServer ":{
```

```
    " ServerId ":" vm - 231 ",
    " Port ":" 70 ",
    " Weight ":" 100 ",
    " Type ":" ecs "
  },
  " RequestId ":" 9DEC9C28 - AB05 - 4DDF - 9A78 - 6B08EC9CE1 8C ",
  " VServerGroupUpId ":" rsp - cige6j5e7p "
}
```

Error codes

[See common error codes.](#)

13.6 ModifyVServerGroupBackendServers

Replaces backend servers in a VServer group.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	ModifyVServerGroupBackendServers	The name of this action. Value: ModifyVServerGroupBackendServers
RegionId	String	Yes	cn-hangzhou-d	The ID of the region to which the SLB instance belongs.
VServerGroupUpId	String	Yes	rsp-cige6j5e7p	The ID of the VServer group.

Parameter	Type	Required ?	Example value	Description
NewBackendServers	String	No	[{'ServerId': 'vm-235', 'Port': 8080, 'Weight': 100}, {'ServerId': 'vm-236', 'Port': 70, 'Weight': 100}]	Optional. The list of new backend servers to be added. Up to 20 backend servers can be included in one API call.  Note: Make sure the number of backend servers in NewBackendServers is the same as that in OldBackendServers.
OldBackendServers	String	No	[{'ServerId': 'vm-233', 'Port': 80}, {'ServerId': 'vm-232', 'Port': 90}]	Optional. The list of backend servers to be removed.

Response parameters

Parameter	Type	Example value	Description
VServerGroupId	String	rsp-cige6j5e7p	The ID of the VServer group.
BackendServers			A list of backend servers.
└ServerId	String	vm-236	The ECS instance ID or ENI ID.
└Port	Integer	70	The port used by the backend server.
└Weight	Integer	100	The weight of the backend server.
└Description	String	A description of the backend server.	A description of the backend server.

Parameter	Type	Example value	Description
Type	String	ecs	The backend server type. Valid values: - ecs: ECS instance (default) - eni: Elastic Network Interface (ENI)
RequestId	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = ModifyVServerGroupBackendServers
& RegionId = cn - hangzhou
& VServerGroupUpId = rsp - cige6j5e7p
&< CommonParameters >
```

Response examples

XML format

```
< ModifyVServerGroupBackendServersResponse >
  < RequestId > 9DEC9C28 - AB05 - 4DDF - 9A78 - 6B08EC9CE1 8C </
RequestId >
  < VServerGroupUpId > rsp - cige6j5e7p </ VServerGroupUpId >
  < BackendServers >
    < BackendServer >
      < ServerId > vm - 400 </ ServerId >
      < Port > 80 </ Port >
      < Weight > 100 </ Weight >
    </ BackendServer >
    < BackendServer >
      < ServerId > vm - 401 </ ServerId >
      < Port > 90 </ Port >
      < Weight > 100 </ Weight >
    </ BackendServer >
  </ BackendServers >
</ ModifyVServerGroupBackendServersResponse >
```

JSON format

```
{
  "ModifyVServerGroupBackendServersResponse":{
    "BackendServers":{
      "BackendServer":[
        {
          "ServerId":"vm - 400 ",
          "Port":"80 ",
```

```
    " Weight ":" 100 "
  },
  {
    " ServerId ":" vm - 401 ",
    " Port ":" 90 ",
    " Weight ":" 100 "
  }
],
" RequestId ":" 9DEC9C28 - AB05 - 4DDF - 9A78 - 6B08EC9CE1 8C ",
" VServerGro upId ":" rsp - cige6j5e7p "
}
```

Error codes

[See common error codes.](#)

13.7 DeleteVServerGroup

Deletes a VServer group.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DeleteVServerGroup	The name of this action. Value: DeleteVServerGroup
RegionId	String	Yes	cn-hangzhou-d	The ID of the region to which the SLB instance belongs.
VServerGroupId	String	Yes	rsp-cige6j5e7p	The ID of the VServer group.  Note: If the VServer group is in use, it cannot be deleted.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = DeleteVServerGroup
& RegionId = cn - hangzhou
& VServerGroupId = rsp - cige6j5e7p
&< CommonParameters >
```

Response examples

XML format

```
< DeleteVServerGroupResponse >
  < RequestId > 9DEC9C28 - AB05 - 4DDF - 9A78 - 6B08EC9CE1 8C </
  RequestId >
</ DeleteVServerGroupResponse >
```

JSON format

```
{
  "RequestId ":" 9DEC9C28 - AB05 - 4DDF - 9A78 - 6B08EC9CE1 8C "
}
```

Error codes

[See common error codes.](#)

13.8 DescribeVServerGroups

Queries the list of VServer groups.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeVServerGroups	The name of this action. Value: DescribeVServerGroups
LoadBalancerId	String	Yes	lb-bp1o94dp5i6earr9g6d1l	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs.
IncludeListener	Boolean	No	false	Optional. Indicates whether to return the associated listener information. Default value: false
IncludeRule	Boolean	No	false	Optional. Indicates whether to return the associated forwarding rule information. Default value: false

Response parameters

Parameter	Type	Example value	Description
VServerGroups			A list of VServer groups.
└VServerGroupId	String	rsp-0bfucwuotx	The ID of the VServer group.
└VServerGroupName	String	Group3	The name of the VServer group.
└AssociatedObjects			Associated information
└Listeners			A list of associated listeners.

Parameter	Type	Example value	Description
↳Port	Integer	80	The listening port.
↳Protocol	String	tcp	The protocol used by the listener.
↳Rules			A list of forwarding rules.
↳Domain	String	www.example.com	The request domain name.
↳RuleId	String	123	The ID of the forwarding rule.
↳RuleName	String	test	The name of the forwarding rule.
↳Url	String	/example	The access path.
RequestId	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = DescribeVS_erverGroup_s
& LoadBalanc_erId = lb - bp1o94dp5i_6earr9g6d1_l
& RegionId = cn - hangzhou
&< CommonPara_meters >
```

Response examples

XML format

```
< DescribeVS_erverGroup_sResponse >
  < VServerGro_ups >
    < VServerGro_up >
      < VServerGro_upId > rsp - bp12bjrnyk_yp0 </ VServerGro_upId >
      < VServerGro_upName > 6 </ VServerGro_upName >
      < Associated_Objects >
        < Listeners />
        < Rules />
      </ Associated_Objects >
    </ VServerGro_up >
    < VServerGro_up >
      < VServerGro_upId > rsp - bp16rt0dzb_m23 </ VServerGro_upId >
      < VServerGro_upName > text2 </ VServerGro_upName >
      < Associated_Objects >
        < Listeners />
        < Rules />
      </ Associated_Objects >
  </ VServerGro_ups >
</ DescribeVS_erverGroup_sResponse >
```

```

    </ VServerGro up >
  </ VServerGro ups >
  < RequestId > E3F94C66 - 5DDD - 4A6B - B37D - FD237FB31F E6 </
RequestId >
</ DescribeVS erverGroup sResponse >

```

JSON format

```

{
  " VServerGro ups ":[
    {
      " VServerGro upId ":" rsp - cige6j5e7p ",
      " VServerGro upName ":" Group1 "
    },
    {
      " VServerGro upId ":" rsp - 6cejzlld7 ",
      " VServerGro upName ":" Group2 "
    },
    {
      " VServerGro upId ":" rsp - 0bfucwuotx ",
      " VServerGro upName ":" Group3 "
    }
  ],
  " RequestId ":" 9DEC9C28 - AB05 - 4DDF - 9A78 - 6B08EC9CE1 8C "
}

```

Error codes

[See common error codes.](#)

14 Active/standby server groups

14.1 CreateMasterSlaveServerGroup

Creates an active/standby server group. An active/standby server group can only contain two ECS instances. One is the active backend server and the other one is the standby backend server.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	CreateMasterSlaveServerGroup	The name of this action. Value: CreateMasterSlaveServerGroup
LoadBalancerId	String	Yes	lb-bp1hv944r69al4j9jkmvx	The ID of the SLB instance.
MasterSlaveBackendServers	String	Yes	[{'ServerId':'vm-233','Port':'80','Weight':'100','ServerType':'Master'},{'ServerId':'vm-232','Port':'90','Weight':'100','ServerType':'Slave'}]	A list of backend servers in the active/standby server group. An active/standby server group can contain a maximum of two backend servers. If you do not specify this parameter, an empty list is created.
RegionId	String	Yes	cn-hangzhou-d	The ID of the region to which the SLB instance belongs.

Parameter	Type	Required?	Example value	Description
MasterSlaveServerGroupName	String	No	Group1	Optional. The name of the active/standby server group.

Response parameters

Parameter	Type	Example value	Description
MasterSlaveServerGroupId	String	rsp-cige6j5e7p	The ID of the active/standby server group.
MasterSlaveBackendServers			A list of backend servers in the active/standby server group.
└ServerId	String	vm-232	The ID of the ECS instance or ENI to be added.
└Port	Integer	90	The port used by the backend server.
└Weight	Integer	100	The weight of the backend server.
└ServerType	String	Slave	The backend server type. Value: Master Slave. Default value: Master
└Description	String	A description of the active/standby server group	A description of the active/standby server group.
└Type	String	ecs	The backend server type. Valid values: - ecs: ECS instance (default) - eni: Elastic Network Interface (ENI)

Parameter	Type	Example value	Description
RequestId	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = CreateMasterSlaveServerGroup
& LoadBalancerId = lb - bp1hv944r6 9a14j9jkmv x
& MasterSlaveBackendServers = [{ ' ServerId ':' vm - 233 ',' Port ':' 80 ',' Weight ':' 100 ',' ServerType ':' Master ' }, { ' ServerId ':' vm - 232 ',' Port ':' 90 ',' Weight ':' 100 ',' ServerType ':' Slave ' }]
& RegionId = cn - hangzhou
&< CommonParameters >
```

Response examples

XML format

```
< CreateMasterSlaveServerGroupResponse >
  < RequestId > 9DEC9C28 - AB05 - 4DDF - 9A78 - 6B08EC9CE1 8C </ RequestId >
  < MasterSlaveServerGroupId > rsp - cige6j5e7p </ MasterSlaveServerGroupId >
  < MasterSlaveBackendServers >
    < MasterSlaveBackendServers >
      < ServerId > vm - 233 </ ServerId >
      < Port > 80 </ Port >
      < Weight > 100 </ Weight >
      < ServerType > Master </ ServerType >
    </ MasterSlaveBackendServers >
    < MasterSlaveBackendServers >
      < ServerId > vm - 232 </ ServerId >
      < Port > 90 </ Port >
      < Weight > 100 </ Weight >
      < ServerType > Slave </ ServerType >
    </ MasterSlaveBackendServers >
  </ MasterSlaveBackendServers >
</ CreateMasterSlaveServerGroupResponse >
```

JSON format

```
{
  "CreateMasterSlaveServerGroup":{
    "MasterSlaveBackendServers":{
      "MasterSlaveBackendServers":[
        {
          "ServerId ":" vm - 233 ",
          "Port ":" 80 ",
          "Weight ":" 100 ",
          "ServerType ":" Master "
        },
        {
          "ServerId ":" vm - 232 ",
          "Port ":" 90 ",
          "Weight ":" 100 ",
          "ServerType ":" Slave "
        }
      ]
    }
  }
}
```

```

    {
      " ServerId ":" vm - 232 ",
      " Port ":" 90 ",
      " Weight ":" 100 ",
      " ServerType ":" Slave "
    }
  ],
  " MasterSlav eServerGro upId ":" rsp - cige6j5e7p ",
  " RequestId ":" 9DEC9C28 - AB05 - 4DDF - 9A78 - 6B08EC9CE1 8C "
}
}

```

Error codes

HTTP status code	Error code	Error message	Description
400	BACKEND_SERVERS_NUM_MUST_BE_TWO	Backend servers num must be 2.	The number of backend servers must be 2.
400	BACKEND_SERVERS_HAVE_SAME_PORT_AND_SERVERID	Backend servers have same port and serverId.	A virtual server with the same port and server ID already exists in the backend VServer group.
400	BACKEND_SERVERS_CAN_ONLY_CONTAIN_ONE_MASTER_AND_ONE_SLAVE	Backend servers can only contain one master and one slave.	The active/standby server group can contain only one active server and one standby server.
400	BACKEND_SERVER_ID_CANNOT_BE_EMPTY	Backend server id can not empty.	You must enter a backend server ID.
400	INVALID_SERVER_TYPE	Invalid server type.	The server type is invalid.
400	BACKEND_SERVER_PORT_CANNOT_BE_EMPTY	Backend server port can not empty.	You must specify a backend server port.
400	RealServerPortNotSupport	Real server port not support.	The backend server port is not supported.

[See common error codes.](#)

14.2 DeleteMasterSlaveServerGroup

Deletes an active/standby server group.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DeleteMasterSlaveServerGroup	The name of this action. Value: DeleteMasterSlaveServerGroup
MasterSlaveServerGroupId	String	Yes	rsp-cige6j5e7p	The ID of the active/standby server group.  Note: An active/standby server group in use cannot be deleted.
RegionId	String	Yes	cn-hangzhou-d	The ID of the region to which the SLB instance belongs.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = DeleteMasterSlaveServerGroup
& MasterSlaveServerGroupId = rsp - cige6j5e7p
& RegionId = cn - hangzhou
```

```
&< CommonParameters >
```

Response examples

XML format

```
< DeleteMasterSlaveServerGroupResponse >
  < RequestId > 9DEC9C28 - AB05 - 4DDF - 9A78 - 6B08EC9CE1 8C </
    RequestId >
</ DeleteMasterSlaveServerGroupResponse >
```

JSON format

```
{
  "RequestId ":" 9DEC9C28 - AB05 - 4DDF - 9A78 - 6B08EC9CE1 8C "
}
```

Error codes

[See common error codes.](#)

14.3 DescribeMasterSlaveServerGroupAttribute

Queries the details of an active/standby server group.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeMasterSlaveServerGroupAttribute	The name of this action. Value: DescribeMasterSlaveServerGroupAttribute
MasterSlaveServerGroupId	String	Yes	rsp-cige6j5e7p	The ID of the active/standby server group to be queried.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs.

Response parameters

Parameter	Type	Example value	Description
MasterSlaveServerGroupID	String	rsp-cige6j5e7p	The ID of the active/standby server group.
MasterSlaveServerGroupName	String	Group1	The name of the active/standby server group.
MasterSlaveBackendServers			A list of backend servers in the active/standby server group.
└ServerId	String	vm-233	The ECS instance ID or ENI ID.
└Port	Integer	90	The port used by the backend server.
└Weight	Integer	100	The weight of the backend server.
└ServerType	String	Slave	The backend server type. Valid values: Master Slave. Default value: Master
└Description	String	A description of the active/standby server group	A description of the active/standby server group.
└Type	String	ecs	The backend server type. Valid values: - ecs: ECS instance (default) - eni: Elastic Network Interface (ENI)
RequestId	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = DescribeMasterSlaveServerGroupAttribute
& MasterSlaveServerGroupId = rsp - cige6j5e7p
& RegionId = cn - hangzhou
&< CommonParameters >
```

Response example

XML format

```
< DescribeMasterSlaveServerGroupAttributeResponse >
  < RequestId > 9DEC9C28 - AB05 - 4DDF - 9A78 - 6B08EC9CE1 8C </
RequestId >
  < MasterSlaveServerGroupId > rsp - cige6j5e7p </ MasterSlaveServerGroupId >
  < MasterSlaveBackendServers >
    < MasterSlaveBackendServer >
      < ServerId > vm - 233 </ ServerId >
      < Port > 80 </ Port >
      < Weight > 100 </ Weight >
      < ServerType > Master </ ServerType >
    </ MasterSlaveBackendServer >
  </ MasterSlaveBackendServers >
  < MasterSlaveBackendServers >
    < ServerId > vm - 232 </ ServerId >
    < Port > 90 </ Port >
    < Weight > 100 </ Weight >
    < ServerType > Slave </ ServerType >
  </ MasterSlaveBackendServer >
</ MasterSlaveBackendServers >
</ DescribeMasterSlaveServerGroupAttributeResponse >
```

Error codes

[See common error codes.](#)

14.4 DescribeMasterSlaveServerGroups

Queries the created active/standby server groups.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeMasterSlaveServerGroups	The name of this action. Value: DescribeMasterSlaveServerGroups
LoadBalancerId	String	Yes	lb-bp14zi0n66zpg6ohffzaa	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs.
IncludeListener	Boolean	No	false	Optional. Indicates whether to return the associated listener information. Default value: false

Response parameters

Parameter	Type	Example value	Description
MasterSlaveServerGroups			A list of active/standby server groups.
↳ MasterSlaveServerGroupIds	String	rsp-0bfucwuotx	The ID of the active/standby server group.
↳ MasterSlaveServerGroupName	String	Group3	The name of the active/standby server group.
↳ Associated Objects			The resources associated with the active/standby server group.
↳ Listeners			A list of associated listeners.
↳ Port	Integer	80	The listening port.

Parameter	Type	Example value	Description
<code>Protocol</code>	String	tcp	The protocol used by the listener.
<code>RequestId</code>	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = DescribeMasterSlaveServerGroup s
& LoadBalancerId = lb - bp14zi0n66 zpg6ohffza a
& RegionId = cn - hangzhou
&< CommonParameters >
```

Response examples

XML format

```
< DescribeMasterSlaveServerGroup sResponse >
  < RequestId > 2631BB5E - B576 - 4925 - BDED - 07A66D23E5 DE </
  RequestId >
    < MasterSlaveServerGroups >
      < MasterSlaveServerGroup >
        < MasterSlaveServerGroup upId > rsp - bp1ro3mwp2 x2m </
        MasterSlaveServerGroup upId >
        < MasterSlaveServerGroup upName > test </ MasterSlave
        eServerGroup upName >
        </ MasterSlaveServerGroup up >
      </ MasterSlaveServerGroup >
    </ DescribeMasterSlaveServerGroup sResponse >
```

JSON format

```
{
  " RequestId ":" 265989FE - 136B - 4D6A - B549 - FD40E7A669 2D ",
  " MasterSlaveServerGroups ":{
    " MasterSlaveServerGroup up ":[
      {
        " MasterSlaveServerGroup upId ":" rsp - bp1nlyu136 6z7 ",
        " MasterSlaveServerGroup upName ":" Group1 ",
        " Associated Objects ":{
          " Listeners ":{
            " Listener ":[ ]
          }
        }
      }
    ]
  }
}
```

Error codes

[See common error codes.](#)

15 Server certificates

15.1 UploadServerCertificate

Uploads a server certificate.

This transactional API allows you to upload only one server certificate and corresponding private key at a time.

This means that the server certificate and the private key must both be uploaded successfully. Otherwise, the upload fails. After the certificate and private key are successfully uploaded, the fingerprints of all server certificates under your account are returned.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	UploadServerCertificate	The name of this action. Value: UploadServerCertificate
RegionId	String	Yes	cn-hangzhou	The region to which the server certificate belongs. To query the region ID, call DescribeRegions .
AliCloudCertificateId	String	No	730912673xxxxx_15d97e7709a_71445759hr_789289731	Optional. The ID of the certificate from the Alibaba Cloud SSL Certificates Service. This parameter is required if you use a certificate from the Alibaba Cloud SSL Certificates Service.

Parameter	Type	Required?	Example value	Description
AliCloudCertificateName	String	No	testcertkey	Optional. The name of the certificate from the Alibaba Cloud SSL Certificates Service.
PrivateKey	String	No	wmsad! q23	Optional. The private key to be uploaded.
ResourceGroupId	String	No	rg-atstuj3rto****	The ID of the enterprise resource group.
ServerCertificate	String	No	test	Optional. The public key certificate to be uploaded.
ServerCertificateName	String	No	mycert01	Optional. The name of the server certificate to be uploaded.

Response parameters

Parameter	Type	Example value	Description
ServerCertificateId	String	xxxxidkp-123-cn-test-01	The ID of the server certificate.
ServerCertificateName	String	mycert01	The name of the server certificate.
Fingerprint	String	01:DF:AB:CD	The fingerprint of the server certificate.
AliCloudCertificateId	String	730912xxxxx_15d97e7709a_71445759hr_789289731	The ID of the server certificate from the Alibaba Cloud SSL Certificate Service.
AliCloudCertificateName	String	testcertkey	The name of the server certificate from the Alibaba Cloud SSL Certificate Service.

Parameter	Type	Example value	Description
CommonName	String	test	The domain name that corresponds to the Common Name field of the certificate.
CreateTime	String	2017-08-31T02:49:05Z	The time when the certificate is created.
CreateTime Stamp	Long	1504147745000	The timestamp that indicates when the certificate is created.
ExpireTime	String	1504147745000	The time when the certificate expires.
ExpireTime Stamp	Long	1504147745000	The timestamp that indicates when the certificate expires.
IsAliCloud Certificate	Integer	0	Indicates whether or not the certificate is from the Alibaba Cloud SSL Certificate Service. 0: No 1: Yes
RegionId	String	cn-hangzhou	The ID of the region to which the certificate belongs.
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.
ResourceGroupId	String	rg-atstuj3rtoptyui	The ID of the enterprise resource group.
SubjectAlternativeNames		test	A list of alternate domain names for the certificate is returned in array format.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = UploadServerCertificate
& RegionId = cn - hangzhou
&< CommonParameters >
```

Response examples

XML format

```
< UploadServerCertificateResponse >
  < CommonName >*. example1 . com </ CommonName >
  < RegionIdAlias > cn - hangzhou </ RegionIdAlias >
  < ResourceGroupId > rg - acfmxazb4p h6aiy </ ResourceGroupId >
  < FingerPrint > 68 : 08 : 1a : f8 : 2c : 97 : 69 : a3 : a1 : e6 :
16 : 41 : 4b : ca : 4f : 5d : ee : a5 : ef : 0d </ FingerPrint >
  < ServerCertificateId > 12315790xx xxxxxx3_16 6f8204689_
1714763408 _709981430 </ ServerCertificateId >
  < ExpireTimeStamp > 1558161264 000 </ ExpireTimeStamp >
  < AliCloudCertificateId > 1501739 </ AliCloudCertificateId >
  < ExpireTime > 2019 - 05 - 18T06 : 34 : 24Z </ ExpireTime >
  < RegionId > cn - hangzhou </ RegionId >
  < RequestId > C87620A7 - 3608 - 48D0 - BC41 - A83FB4FF0E C6 </
RequestId >
  < ServerCertificateName >*. example1 . com </ ServerCertificateName >
  < IsAliCloudCertificate > 1 </ IsAliCloudCertificate >
  < AliCloudCertificateName > slb </ AliCloudCertificateName >
</ UploadServerCertificateResponse >
```

JSON format

```
{
  "ServerCertificateId": "12315790xx xxxxxx3_16 6f8204689_
1714763408 _70998143",
  "CommonName": "*. example1 . com",
  "RegionIdAlias": "cn - hangzhou",
  "AliCloudCertificateId": "1501739",
  "ExpireTime": "2019 - 05 - 18T06 : 34 : 24Z",
  "RequestId": "C87620A7 - 3608 - 48D0 - BC41 - A83FB4FF0E C6",
  "RegionId": "cn - hangzhou",
  "ResourceGroupId": "rg - acfmxazb4p h6aiy",
  "ServerCertificateName": "*. example1 . com",
  "IsAliCloudCertificate": 1,
  "AliCloudCertificateName": "slb",
  "FingerPrint": "68 : 08 : 1a : f8 : 2c : 97 : 69 : a3 : a1 : e6 :
16 : 41 : 4b : ca : 4f : 5d : ee : a5 : ef : 0d"
}
```

Error codes

[See common error codes.](#)

15.2 DeleteServerCertificate

Deletes a server certificate.



Note:

You cannot delete a certificate that is in use.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DeleteServerCertificate	The name of this action. Value: DeleteServerCertificate
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs. To query the region ID, call DescribeRegions .
ServerCertificateId	String	Yes	123157xxxxxxx_166f8204689_1714763408_709981430	The ID of the server certificate.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request.

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = DeleteServerCertificate
```

```
& ServerCertificateId = 123157xxxx xxx_166f82 04689_1714
763408_709 981430
&< CommonParameters >
```

Response examples

XML format

```
< DeleteServerCertificateResponse >
  < RequestId > CEF72CEB - 54B6 - 4AE8 - B225 - F876FF7BA9 84 </
  RequestId >
</ DeleteServerCertificateResponse >
```

JSON format

```
{
  "RequestId ":" CEF72CEB - 54B6 - 4AE8 - B225 - F876FF7BA9 84 "
}
```

Error codes

[See common error codes.](#)

15.3 DescribeServerCertificates

Queries the server certificates of a region.



Note:

For security reasons, only the name and the fingerprint are returned instead of the certificate content and the private key.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeServerCertificates	The name of this action. Value: DescribeServerCertificates

Parameter	Type	Required?	Example value	Description
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs. To query the region ID, call DescribeRegions .
ResourceGroupId	String	No	rg-atstuj3rtoptyui	Optional. The ID of the enterprise resource group.
ServerCertificateId	String	No	12315790xxxxxx_166f8204689_1714763408_709981430	Optional. The ID of the server certificate.

Response parameters

Parameter	Type	Example value	Description
ServerCertificates			A list of the server certificates.
└ServerCertificateId	String	123157xxxxxx_166f8204689_1714763408_709981430-cn-east-hangzhou-02	The ID of the server certificate.
└ServerCertificateName	String	slb	The name of the server certificate.
└RegionId	String	cn-hangzhou	The region to which the server certificate belongs.
└Fingerprint	String	68:08:1a:f8:2c:97:69:a3:a1:e6:16:41:4b:ca:4f:5d:ee:a5:ef:0d	The fingerprint of the server certificate.

Parameter	Type	Example value	Description
[⌞] AliCloudCertificateId	String	7309xxxxxx_15d97e7709a_71445759hr_789289731	The ID of the server certificate from the Alibaba Cloud SSL Certificate Service.
[⌞] AliCloudCertificateName	String	testcertkey	The name of the server certificate from the Alibaba Cloud SSL Certificate Service.
[⌞] CommonName	String	www.example.com	The domain name that corresponds to the CommonName field of the certificate.
[⌞] CreateTime	String	2017-08-31T02:49:05Z	The time at which the server certificate is uploaded.
[⌞] CreateTimeStamp	Long	1504147745000	The timestamp that indicates when the server certificate is uploaded.
[⌞] ExpireTime	String	017-08-31T02:49:05Z	The time at which the server certificate expires.
[⌞] ExpireTimeStamp	Long	15041477450	The timestamp that indicates when the server certificate expires.
[⌞] IsAliCloudCertificate	Integer	0	Indicates whether or not the certificate is from the Alibaba Cloud SSL Certificate Service. 1: Yes 0: No
[⌞] ResourceGroupId	String	rg-atstuj3rtoptyui	The ID of the enterprise resource group.

Parameter	Type	Example value	Description
<code>SubjectAlternativeNames</code>		123	A list of alternate domain names for the certificate is returned in array format. It corresponds to the Subject Alternative Name field of the certificate.
<code>RequestId</code>	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = DescribeServerCertificates
&< CommonParameters >
```

Response examples

XML format

```
< DescribeServerCertificatesResponse >
  < RequestId > 9FFF450B - CC09 - 4FFB - 900F - E347EB7AA2 CC </
  RequestId >
  < ServerCertificates >
    < ServerCertificate >
      < CreateTimeStamp > 1541761156 000 </ CreateTimeStamp >
      < CommonName > *. example1 . com </ CommonName >
      < RegionIdAlias > cn - hangzhou </ RegionIdAlias >
      < ResourceGroupId > rg - acfmazb4p h6aiy </ ResourceGr
      oupId >
      < Fingerprint > 68 : 08 : 1a : f8 : 2c : 97 : 69 : a3 : a1 :
      e6 : 16 : 41 : 4b : ca : 4f : 5d : ee : a5 : ef : 0d </ Fingerprint >
      < ServerCertificateId > 1231579xxx xxx_166f82 04689_1714
      763408_709 981430 </ ServerCertificateId >
      < ExpireTimeStamp > 1558161264 000 </ ExpireTimeStamp >
      < AliCloudCertificateId > 1501739 </ AliCloudCertificateI
      d >
      < ExpireTime > 2019 - 05 - 18T06 : 34 : 24Z </ ExpireTime >
      < RegionId > cn - hangzhou </ RegionId >
      < CreateTime > 2018 - 11 - 09T10 : 59 : 16Z </ CreateTime >
      < ServerCertificateName > *. example1 . com </ ServerCert
      ificateName >
      < IsAliCloudCertificate > 1 </ IsAliCloud Certificat e >
      < AliCloudCertificateName > slb </ AliCloudCe rtificateN
      ame >
    </ ServerCertificate >
    < ServerCertificate >
      < CreateTimeStamp > 1481623069 000 </ CreateTimeStamp >
      < RegionIdAlias > cn - hangzhou </ RegionIdAlias >
```

```

    < ResourceGroup Id > rg - acfmxazb4p h6aiy </ ResourceGroup Id >
    < Fingerprint > cd : 90 : 1b : 7b : 49 : 4d : 1d : 90 : f6 :
01 : de : 9a : 81 : 7d : 31 : a7 : 38 : 1d : 84 : 8d </ Fingerprint >
    < ServerCertificate Id > 1231579085 xxxx_158f7 9de306 </
ServerCertificate Id >
    < ExpireTime Stamp > 1732169065 000 </ ExpireTime Stamp >
    < AliCloudCertificate Id > 0 </ AliCloudCertificate Id >
    < ExpireTime > 2024 - 11 - 21T06 : 04 : 25Z </ ExpireTime >
    < RegionId > cn - hangzhou </ RegionId >
    < CreateTime > 2016 - 12 - 13T09 : 57 : 49Z </ CreateTime >
    < ServerCertificate Name > test_certificate </ ServerCertificate
Certificate Name >
    < IsAliCloudCertificate > 0 </ IsAliCloudCertificate >
    < AliCloudCertificate Name />
  </ ServerCertificate >
</ ServerCertificates >
</ DescribeServerCertificatesResponse >

```

JSON format

```

{
  "RequestId ":" 9FFF450B - CC09 - 4FFB - 900F - E347EB7AA2 CC ",
  "ServerCertificates ":{
    "ServerCertificate ":[
      {
        "CreateTime Stamp ": 1541761156 000 ,
        "CommonName ":"*. example1 . com ",
        "RegionIdAlias ":" cn - hangzhou ",
        "ResourceGroup Id ":" rg - acfmxazb4p h6aiy ",
        "Fingerprint ":" 68 : 08 : 1a : f8 : 2c : 97 : 69 : a3 : a1 :
e6 : 16 : 41 : 4b : ca : 4f : 5d : ee : a5 : ef : 0d ",
        "ServerCertificate Id ":" 1231579xxx xxxx_166f8 204689_171
4763408_70 9981430 ",
        "ExpireTime Stamp ": 1558161264 000 ,
        "AliCloudCertificate Id ":" 1501739 ",
        "ExpireTime ":" 2019 - 05 - 18T06 : 34 : 24Z ",
        "RegionId ":" cn - hangzhou ",
        "CreateTime ":" 2018 - 11 - 09T10 : 59 : 16Z ",
        "ServerCertificate Name ":"*. example1 . com ",
        "IsAliCloudCertificate ": 1 ,
        "AliCloudCertificate Name ":" slb "
      },
      {
        "CreateTime Stamp ": 1481623069 000 ,
        "RegionIdAlias ":" cn - hangzhou ",
        "ResourceGroup Id ":" rg - acfmxazb4p h6aiy ",
        "Fingerprint ":" cd : 90 : 1b : 7b : 49 : 4d : 1d : 90 : f6 :
01 : de : 9a : 81 : 7d : 31 : a7 : 38 : 1d : 84 : 8d ",
        "ServerCertificate Id ":" 1231579085 529123_158 f79de306 ",
        "ExpireTime Stamp ": 1732169065 000 ,
        "AliCloudCertificate Id ":" 0 ",
        "ExpireTime ":" 2024 - 11 - 21T06 : 04 : 25Z ",
        "RegionId ":" cn - hangzhou ",
        "CreateTime ":" 2016 - 12 - 13T09 : 57 : 49Z ",
        "ServerCertificate Name ":" test_certificate ",
        "IsAliCloudCertificate ": 0 ,
        "AliCloudCertificate Name ":" "
      }
    ]
  }
}

```

```
}
```

Error codes

See [common error codes](#).

15.4 SetServerCertificateName

Sets the name of a server certificate.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	SetServerCertificateName	The name of this action. Value: SetServerCertificateName
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs. To query the region ID, call DescribeRegions .
ServerCertificateId	String	Yes	139a00604ad-cn-east-hangzhou-01	The ID of the server certificate.
ServerCertificateName	String	Yes	abc	The name of the server certificate. The name must be 1 to 80 characters in length and start with an English letter or a Chinese character. It can contain numbers, underscores (_), periods (.), and hyphens (-).

Response parameters

Parameter	Type	Example value	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FE7BA984	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = SetServerCertificate & Name & RegionId = cn - hangzhou & ServerCertificateId = 139a00604a d - cn - east - hangzhou - 01 & ServerCertificateName = abc &< CommonParameters >
```

Response examples

XML format

```
< SetServerCertificateNameResponse >
  < RequestId > CEF72CEB - 54B6 - 4AE8 - B225 - F876FE7BA9 84 </
  RequestId >
</ SetServerCertificateNameResponse >
```

JSON format

```
{
  "RequestId ":" CEF72CEB - 54B6 - 4AE8 - B225 - F876FE7BA9 84 "
}
```

Error codes

[See common error codes.](#)

15.5 UploadCACertificate

Uploads a CA certificate.

You can only upload one CA certificate each time. After a CA certificate is uploaded, the certificate ID, name, and fingerprint are returned.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	UploadCACertificate	The name of this action. Value: UploadCACertificate
RegionId	String	Yes	cn-hangzhou	The region to which the CA certificate belongs. To query the region ID, call DescribeRegions .
CACertificate	String	Yes	test	The content of the CA certificate to be uploaded.
CACertificateName	String	No	mycacert01	Optional. The name of the CA certificate.
ResourceGroupId	String	No	rg-atstuj3rtoptyui	Optional. The ID of the enterprise resource group.

Response parameters

Parameter	Type	Example value	Description
CACertificateId	String	139a00604ad-cn-east-hangzhou-01	The ID of the CA certificate.
CACertificateName	String	mycacert01	The name of the CA certificate.
Fingerprint	String	02:DF:AB:ED	The fingerprint of the CA certificate.
CommonName	String	.example.com	The domain name of the CA certificate.
CreateTime	String	2017-08-31T02:49:05Z	The time at which the CA certificate is uploaded.

Parameter	Type	Example value	Description
CreateTime Stamp	Long	1504147745000	The timestamp indicating when the CA certificate is uploaded.
ExpireTime	String	2024-11-21T06:04:25Z	The time at which the CA certificate expires.
ExpireTime Stamp	Long	1732169065000	The timestamp indicating when the CA certificate expires.
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.
ResourceGroupId	String	rg-atstuj3rtoptyui	The ID of the enterprise resource group.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = UploadCACertificate
& RegionId = cn - hangzhou
& CACertificate = test
&< CommonParameters >
```

Response examples

XML format

```
< UploadCACertificateResponse >
  < RequestId > 365F4154 - 92F6 - 4AE4 - 92F8 - 7FF34B5407 10 </
  RequestId >
  < ServerCertificateId > idkp - 234 - cn - test - 02 </ ServerCertificateId >
  < ServerCertificateName > mycacert01 </ ServerCertificateName >
  < Fingerprint > 02 : DF : AB : ED </ Fingerprint >
</ UploadCACertificateResponse >
```

JSON format

```
{
  "ServerCertificateId ":" idkp - 234 - cn - test - 02 ",
  "RequestId ":" 365F4154 - 92F6 - 4AE4 - 92F8 - 7FF34B5407 10 ",
  "ServerCertificateName ":" mycacert01 ",
  "Fingerprint ":" 02 : DF : AB : ED "
```

```
}
```

Error codes

[See common error codes.](#)

15.6 DeleteCACertificate

Deletes a CA certificate.



Note:

CA certificates in use cannot be deleted.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DeleteCACertificate	The name of this action. Value: DeleteCACertificate
RegionId	String	Yes	cn-hangzhou	The region to which the CA certificate belongs. To query the region ID, call DescribeRegions .
CACertificateId	String	Yes	123157908xxxxxx_15c73d77203_-986300114_-2110544xxx	The ID of the CA certificate.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = DeleteCACertificate
& RegionId = cn - hangzhou
& CertificateId = 123157908xxxxxx_15c73d77203_ - 986300114_ -
2110544xxx
&< CommonParameters >
```

Response examples

XML format

```
< DeleteCACertificateResponse >
  < RequestId > CEFxxxxx72CEB - 54B6 - 4AE8 - B225 - F876FF7BA9 84
</ RequestId >
</ DeleteCACertificateResponse >
```

JSON format

```
{
  "RequestId ":" CEFxxxxx72CEB - 54B6 - 4AE8 - B225 - F876FF7BA9 84
}
```

Error codes

[See common error codes.](#)

15.7 DescribeCACertificates

Queries the list of CA certificates.



Note:

For security reasons, only the name and the fingerprint are returned instead of the certificate content and the private key.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeCACertificates	The name of this action. Value: DescribeCACertificates
RegionId	String	Yes	cn-hangzhou	The region to which the CA certificate belongs. To query the region ID, call DescribeRegions .
CACertificateId	String	No	139a00604bd-cn-east-hangzhou-02	Optional. The ID of the CA certificate.
OwnerAccount	String	No	testuser@aliyun.com	Optional. Your account.
ResourceGroupId	String	No	rg-atstuj3rtoptyui	Optional. The ID of the enterprise resource group.

Response parameters

Parameter	Type	Example value	Description
CACertificates			A list of CA certificates.
└CACertificateId	String	139a00604bd-cn-east-hangzhou-02	The ID of the CA certificate.
└CACertificateName	String	test	The name of the CA certificate.
└RegionId	String	cn-hangzhou	The region to which the CA certificate belongs.
└Fingerprint	String	AC:BE:FD	The fingerprint of the CA certificate.

Parameter	Type	Example value	Description
<code>CommonName</code>	String	.example.com	The domain name of the CA certificate.
<code>CreateTime</code>	String	2017-08-31T02:49:05Z	The time when the CA certificate is created.
<code>CreateTimeStamp</code>	Long	1504147745000	The timestamp that indicates when the CA certificate is created.
<code>ExpireTime</code>	String	2024-11-21T06:04:25Z	The time when the CA certificate expires.
<code>ExpireTimeStamp</code>	Long	1732169065000	The timestamp that indicates when the CA certificate expires.
<code>ResourceGroupId</code>	String	rg-atstuj3rtoptyui	The ID of the enterprise resource group.
<code>RequestId</code>	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = DescribeCA Certificates
& RegionId = cn - hangzhou
& < CommonParameters >
```

Response examples

XML format

```
< DescribeCA CertificateResponse >
  < RequestId > 365F4154 - 92F6 - 4AE4 - 92F8 - 7FF34B5407 10 </
RequestId >
  < CACertificates >
    < CACertificate >
      < CACertificateId > 139a00604b d - cn - east - hangzhou - 01
</ CACertificateId >
      < CACertificateName > bcd
</ CACertificateName >
      < Fingerprint > AB : CB : DE </ Fingerprint >
</ CACertificate >
```

```

    < CACertific ate >
      < CACertific ateId > 139a00604b d - cn - east - hangzhou - 02
    </ CACertific ateId >
      < CACertific ateName > cde </ CACertific ateName >
      < Fingerprin t > AC : BE : FD </ Fingerprin t >
    </ CACertific ate >
  </ CACertific ates >
</ DescribeCA Certificat eResponse >

```

JSON format

```

{
  "RequestId ":" 365F4154 - 92F6 - 4AE4 - 92F8 - 7FF34B5407 10 ",
  "CACertific ates ":{
    "CACertific ate ":[
      {
        "CACertific ateName ":" bcd ",
        "Fingerprin t ":" AB : CB : DE ",
        "CACertific ateId ":" 139a00604b d - cn - east - hangzhou - 01
      "
      },
      {
        "CACertific ateName ":" cde ",
        "Fingerprin t ":" AC : BE : FD ",
        "CACertific ateId ":" 282b00102a c - cn - east - hangzhou - 02
      "
      }
    ]
  }
}

```

Error codes

See [common error codes](#).

15.8 SetCACertificateName

Sets the name of a CA Certificate.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	SetCACertificateName	The name of this action. Value: SetCACertificateName

Parameter	Type	Required?	Example value	Description
RegionId	String	Yes	cn-hangzhou	The region to which the CA certificate belongs. To query the region ID, call DescribeRegions .
CACertificateId	String	Yes	139a00604ad-cn-east-hangzhou-01	The ID of the CA certificate.
CACertificateName	String	Yes	mycacert02	The name of the CA certificate. The name must be 1 to 80 characters in length and start with an English letter or a Chinese character. It can contain numbers, underscores (_), periods (.), and hyphens (-).

Response parameters

Parameter	Type	Example value	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FE7BA984	The ID of the request.

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = SetCACertificateName
& RegionId = cn - hangzhou
& CACertificateId = 139a00604ad - cn - east - hangzhou - 01
& CACertificateName = mycacert02
& < CommonParameters >
```

Response examples

XML format

```
< SetCACertificateName Response >
```

```
< RequestId > CEF72CEB - 54B6 - 4AE8 - B225 - F876FE7BA9 84 </  
RequestId >  
</ SetCACertificateName Response >
```

JSON format

```
{  
  "RequestId": "CEF72CEB - 54B6 - 4AE8 - B225 - F876FE7BA9 84 "  
}
```

Error codes

[See common error codes.](#)

16 Domain name extensions (Beta)

16.1 CreateDomainExtension

Creates a domain name extension.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	CreateDomainExtension	The name of this action. Value: CreateDomainExtension
Domain	String	Yes	*.example1.com	The domain name to be created.
ListenerPort	Integer	Yes	443	The frontend port of the HTTPS listener. Value range: 1 to 65535
LoadBalancerId	String	Yes	lb-bp1o94dp5i6earrxxxxxx	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs.
ServerCertificateId	String	Yes	123157xxxxxxx_166f820xxxxxx_1714763408_709981xxxx	The ID of the certificate used by the domain name.

Response parameters

Parameter	Type	Example value	Description
DomainExtensionId	String	de-bp1rp7ta19xxxx	The ID of the created domain name extension.
ListenerPort	Integer	80	The frontend port used by the SLB instance.
RequestId	String	A6E7EFC9-0938-40CA-877D-9BEDBD21D357	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = CreateDomainExtension
& Domain = *. example1 . com
& ListenerPort = 443
& LoadBalancerId = lb - bp1o94dp5i 6earrxxxxx x
& RegionId = cn - hangzhou
& ServerCertificateId = 123157xxxx xxx_166f82 0xxxxxxx_17
14763408_7 09981xxxx
&< CommonParameters >
```

Response examples

XML format

```
< CreateDomainExtensionResponse >
  < RequestId > A6E7EFC9 - 0938 - 40CA - 877D - 9BEDBD21D3 57 </
  RequestId >
  < DomainExtensionId > de - bp1rp7ta19 1dv </ DomainExtensionId
  >
  < ListenerPort > 443 </ ListenerPort >
</ CreateDomainExtensionResponse >
```

JSON format

```
{
  "RequestId": "A6E7EFC9 - 0938 - 40CA - 877D - 9BEDBD21D3 57 ",
  "DomainExtensionId": "de - bp1rp7ta19 1dv ",
  "ListenerPort": 443
}
```

Error codes

[See common error codes.](#)

16.2 SetDomainExtensionAttribute

Modifies the certificate of a domain name extension.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	SetDomainExtensionAttribute	The name of this action. Value: SetDomainExtensionAttribute
DomainExtensionId	String	Yes	de-bp1rp7ta91dv	The ID of the domain name extension to be modified.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs.
ServerCertificateId	String	Yes	1231579xxx xxxxx_166f 8204689_17 14763408_7 09981xxx	The ID of the new certificate.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	149A2470-F010-4437-BF68-343D5099C19D	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = SetDomainExtensionAttribute
& DomainExtensionId = de - bp1rp7ta91dv
& RegionId = cn - hangzhou
```

```
& ServerCertificateId = 1231579xxx xxxxx_166f 8204689_17
14763408_7 09981xxx
&< CommonParameters >
```

Response examples

XML format

```
< SetDomainExtensionAttributeResponse >
  < RequestId > 149A2470 - F010 - 4437 - BF68 - xxxxx </ RequestId >
</ SetDomainExtensionAttributeResponse >
```

JSON format

```
{
  "RequestId ":" B1435A8D - 5AE2 - 4EB2 - 9590 - xxxxxx "
}
```

Error codes

[See common error codes.](#)

16.3 DescribeDomainExtensions

Queries the added domain name extensions.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeDomainExtensions	The name of this action. Value: DescribeDomainExtensions
ListenerPort	Integer	Yes	443	The frontend port used by the HTTPS listener of the SLB instance. Value range: 1 to 65535
LoadBalancerId	String	Yes	lb-bp1o94dp5i6earr9g6d1l	The ID of the SLB instance.

Parameter	Type	Required?	Example value	Description
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs.
DomainExtensionId	String	No	de-bp1rp7ta191dv	Optional. The ID of the domain name extension.

Response parameters

Parameter	Type	Example value	Description
DomainExtensions			A list of domain name extensions.
└Domain	String	www.example.com	The domain name.
└DomainExtensionId	String	de-bp1rp7ta191dv	The ID of the domain name extension.
└ServerCertificateId	String	1231579085529123_166f8204689_1714763408_709981430	The ID of the certificate used by the domain name.
RequestId	String	48C1B671-C6DB-4DDE-9B30-10557E36CDE0	The ID of the request.

Examples

Request example

```
http ( s ) : [ Endpoint ] / ? Action = DescribeDomainExtensions
& ListenerPort = 443
& LoadBalancerId = lb-bp1o94dp5i6earr9g6d1l
& RegionId = cn-hangzhou
& < CommonParameters >
```

Response examples

XML format

```
< DescribeDomainExtensionsResponse >
```

```

< RequestId > CCC710F8 - 285C - 415F - 9211 - 9BD6BF7BB9 97 </
RequestId >
< DomainExtensions >
  < DomainExtension >
    < ServerCertificateId > 123157908x xxxxx_166f 8204689_17
14763408_7 0xxx </ ServerCertificateId >
    < Domain >*. example2 . com </ Domain >
    < DomainExtensionId > de - bp1k4chwdn hxd </ DomainExtensionId >
  </ DomainExtension >
</ DomainExtensions >
</ DescribeDomainExtensionsResponse >

```

JSON format

```

{
  "RequestId ":" 48C1B671 - C6DB - 4DDE - 9B30 - 10557E36CD E0 ",
  "DomainExtensions ":{
    "DomainExtension ":[
      {
        "ServerCertificateId ":" 123157908x xxxxx_166f 8204689_17
14763408_7 0xxx ",
        "Domain ":"*. example1 . com ",
        "DomainExtensionId ":" de - bp1rp7ta19 1dv "
      }
    ]
  }
}

```

Error codes

See [common error codes](#).

16.4 DeleteDomainExtension

Deletes a domain name extension.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DeleteDomainExtension	The name of this action. Value: DeleteDomainExtension
DomainExtensionId	String	Yes	de-bp1rp7ta191dv	The ID of the domain name extension to be deleted.

Parameter	Type	Required?	Example value	Description
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	149A2470-F010-4437-BF68-343D5099C19D	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = DeleteDomainExtension
& DomainExtensionId = de-bp1rp7ta191dv
& RegionId = cn-hangzhou
&< CommonParameters >
```

Response examples

XML format

```
< DeleteDomainExtensionResponse >
  < RequestId > 149A2470 - F010 - 4437 - BF68 - 343D5099C1 9D </
  RequestId >
</ DeleteDomainExtensionResponse >
```

JSON format

```
{
  "RequestId ":" 5B45BED9 - 4D41 - 47B0 - ADD6 - 47A5624516 C7 "
```

Error codes

[See common error codes.](#)

17 Quota query

17.1 DescribeAvailableResource

Queries the resources available for purchase in a region.



Note:

Only available zones and resource types are returned.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeAvailableResource	The name of this action. Value: DescribeAvailableResource
RegionId	String	Yes	cn-hangzhou	The ID of the region you want to query.
AddressIPVersion	String	No	ipv4	Optional. The IP version of the resources to be queried. Valid value: Ipv4 ipv6
AddressType	String	No	vpc	Optional. The network type of the resources to be queried. Valid value: vpc classic-internet classic-intranet

Response parameters

Parameter	Type	Example value	Description
AvailableResources			A list of available resources and corresponding zones.
MasterZoneId	String	cn-shanghai-a	The primary zone ID.
SlaveZoneId	String	cn-shanghai-b	The secondary zone ID.
SupportResources			The resources available in the corresponding zone.
AddressIPVersion	String	ipv4	The IP version of the resources. Valid values: ipv4 ipv6
AddressType	String	classic_internet	The network type of the resources. Valid value: vpc classic-internet classic-intranet
RequestId	String	173B0EEA-22ED-4EE2-91F9-3A1CDDFFBBBA	The ID of the request.

Examples

Request example

```
http ( s ) : [ Endpoint ] / ? Action = DescribeAvailableResources
& RegionId = cn - hangzhou
& < CommonParameters >
```

Response examples

XML format

```
< DescribeAvailableResources >
  < RequestId > 173B0EEA - 22ED - 4EE2 - 91F9 - 3A1CDDFFBB BA </
  RequestId >
    < AvailableResources >
      < AvailableResource >
        < SupportResources >
          < SupportResource >
```

```

        < AddressIPV ersion > ipv4 </ AddressIPV ersion >
        < AddressTyp e > classic_in ternet </ AddressTyp e >
    </ SupportRes ource >
    < SupportRes ource >
        < AddressIPV ersion > ipv4 </ AddressIPV ersion >
        < AddressTyp e > classic_in tranet </ AddressTyp e >
    </ SupportRes ource >
    < SupportRes ource >
        < AddressIPV ersion > ipv4 </ AddressIPV ersion >
        < AddressTyp e > vpc </ AddressTyp e >
    </ SupportRes ource >
</ SupportRes ources >
< SlaveZoneI d > cn - shanghai - b </ SlaveZoneI d >
< MasterZone Id > cn - shanghai - a </ MasterZone Id >
</ AvailableR esource >
< AvailableR esource >
    < SupportRes ources >
        < SupportRes ource >
            < AddressIPV ersion > ipv4 </ AddressIPV ersion >
            < AddressTyp e > classic_in ternet </ AddressTyp e >
        </ SupportRes ource >
        < SupportRes ource >
            < AddressIPV ersion > ipv4 </ AddressIPV ersion >
            < AddressTyp e > classic_in tranet </ AddressTyp e >
        </ SupportRes ource >
        < SupportRes ource >
            < AddressIPV ersion > ipv4 </ AddressIPV ersion >
            < AddressTyp e > vpc </ AddressTyp e >
        </ SupportRes ource >
    </ SupportRes ources >
    < SlaveZoneI d > cn - shanghai - a </ SlaveZoneI d >
    < MasterZone Id > cn - shanghai - b </ MasterZone Id >
</ AvailableR esource >
< AvailableR esource >
    < SupportRes ources >
        < SupportRes ource >
            < AddressIPV ersion > ipv4 </ AddressIPV ersion >
            < AddressTyp e > classic_in ternet </ AddressTyp e >
        </ SupportRes ource >
        < SupportRes ource >
            < AddressIPV ersion > ipv4 </ AddressIPV ersion >
            < AddressTyp e > classic_in tranet </ AddressTyp e >
        </ SupportRes ource >
        < SupportRes ource >
            < AddressIPV ersion > ipv4 </ AddressIPV ersion >
            < AddressTyp e > vpc </ AddressTyp e >
        </ SupportRes ource >
    </ SupportRes ources >
    < SlaveZoneI d > cn - shanghai - c </ SlaveZoneI d >
    < MasterZone Id > cn - shanghai - b </ MasterZone Id >
</ AvailableR esource >
< AvailableR esource >
    < SupportRes ources >
        < SupportRes ource >
            < AddressIPV ersion > ipv4 </ AddressIPV ersion >
            < AddressTyp e > classic_in ternet </ AddressTyp e >
        </ SupportRes ource >
        < SupportRes ource >
            < AddressIPV ersion > ipv4 </ AddressIPV ersion >
            < AddressTyp e > classic_in tranet </ AddressTyp e >
        </ SupportRes ource >
        < SupportRes ource >
            < AddressIPV ersion > ipv4 </ AddressIPV ersion >
            < AddressTyp e > vpc </ AddressTyp e >
        </ SupportRes ource >
    </ SupportRes ources >

```

```

    </ SupportRes ource >
  </ SupportRes ources >
  < SlaveZoneI d > cn - shanghai - b </ SlaveZoneI d >
  < MasterZone Id > cn - shanghai - c </ MasterZone Id >
</ AvailableR esource >
< AvailableR esource >
  < SupportRes ources >
    < SupportRes ource >
      < AddressIPV ersion > ipv4 </ AddressIPV ersion >
      < AddressTyp e > classic_in ternet </ AddressTyp e >
    </ SupportRes ource >
    < SupportRes ource >
      < AddressIPV ersion > ipv4 </ AddressIPV ersion >
      < AddressTyp e > classic_in tranet </ AddressTyp e >
    </ SupportRes ource >
    < SupportRes ource >
      < AddressIPV ersion > ipv4 </ AddressIPV ersion >
      < AddressTyp e > vpc </ AddressTyp e >
    </ SupportRes ource >
  </ SupportRes ources >
  < SlaveZoneI d > cn - shanghai - e </ SlaveZoneI d >
  < MasterZone Id > cn - shanghai - d </ MasterZone Id >
</ AvailableR esource >
< AvailableR esource >
  < SupportRes ources >
    < SupportRes ource >
      < AddressIPV ersion > ipv4 </ AddressIPV ersion >
      < AddressTyp e > classic_in ternet </ AddressTyp e >
    </ SupportRes ource >
    < SupportRes ource >
      < AddressIPV ersion > ipv4 </ AddressIPV ersion >
      < AddressTyp e > classic_in tranet </ AddressTyp e >
    </ SupportRes ource >
    < SupportRes ource >
      < AddressIPV ersion > ipv4 </ AddressIPV ersion >
      < AddressTyp e > vpc </ AddressTyp e >
    </ SupportRes ource >
  </ SupportRes ources >
  < SlaveZoneI d > cn - shanghai - f </ SlaveZoneI d >
  < MasterZone Id > cn - shanghai - e </ MasterZone Id >
</ AvailableR esource >
< AvailableR esource >
  < SupportRes ources >
    < SupportRes ource >
      < AddressIPV ersion > ipv4 </ AddressIPV ersion >
      < AddressTyp e > classic_in ternet </ AddressTyp e >
    </ SupportRes ource >
    < SupportRes ource >
      < AddressIPV ersion > ipv4 </ AddressIPV ersion >
      < AddressTyp e > classic_in tranet </ AddressTyp e >
    </ SupportRes ource >
    < SupportRes ource >
      < AddressIPV ersion > ipv4 </ AddressIPV ersion >
      < AddressTyp e > vpc </ AddressTyp e >
    </ SupportRes ource >
    < SupportRes ource >
      < AddressIPV ersion > ipv6 </ AddressIPV ersion >
      < AddressTyp e > classic_in ternet </ AddressTyp e >
    </ SupportRes ource >
  </ SupportRes ources >
  < SlaveZoneI d > cn - shanghai - d </ SlaveZoneI d >
  < MasterZone Id > cn - shanghai - e </ MasterZone Id >
</ AvailableR esource >
< AvailableR esource >

```

```

    < SupportRes ource >
    < SupportRes ource >
      < AddressIPV ersion > ipv4 </ AddressIPV ersion >
      < AddressTyp e > classic_in ternet </ AddressTyp e >
    </ SupportRes ource >
    < SupportRes ource >
      < AddressIPV ersion > ipv4 </ AddressIPV ersion >
      < AddressTyp e > classic_in tranet </ AddressTyp e >
    </ SupportRes ource >
    < SupportRes ource >
      < AddressIPV ersion > ipv4 </ AddressIPV ersion >
      < AddressTyp e > vpc </ AddressTyp e >
    </ SupportRes ource >
  </ SupportRes ources >
  < SlaveZoneI d > cn - shanghai - e </ SlaveZoneI d >
  < MasterZone Id > cn - shanghai - f </ MasterZone Id >
</ AvailableR esource >
< AvailableR esource >
  < SupportRes ources >
    < SupportRes ource >
      < AddressIPV ersion > ipv4 </ AddressIPV ersion >
      < AddressTyp e > classic_in ternet </ AddressTyp e >
    </ SupportRes ource >
    < SupportRes ource >
      < AddressIPV ersion > ipv4 </ AddressIPV ersion >
      < AddressTyp e > classic_in tranet </ AddressTyp e >
    </ SupportRes ource >
    < SupportRes ource >
      < AddressIPV ersion > ipv4 </ AddressIPV ersion >
      < AddressTyp e > vpc </ AddressTyp e >
    </ SupportRes ource >
  </ SupportRes ources >
  < SlaveZoneI d > cn - shanghai - g </ SlaveZoneI d >
  < MasterZone Id > cn - shanghai - f </ MasterZone Id >
</ AvailableR esource >
< AvailableR esource >
  < SupportRes ources >
    < SupportRes ource >
      < AddressIPV ersion > ipv4 </ AddressIPV ersion >
      < AddressTyp e > classic_in ternet </ AddressTyp e >
    </ SupportRes ource >
    < SupportRes ource >
      < AddressIPV ersion > ipv4 </ AddressIPV ersion >
      < AddressTyp e > classic_in tranet </ AddressTyp e >
    </ SupportRes ource >
    < SupportRes ource >
      < AddressIPV ersion > ipv4 </ AddressIPV ersion >
      < AddressTyp e > vpc </ AddressTyp e >
    </ SupportRes ource >
  </ SupportRes ources >
  < SlaveZoneI d > cn - shanghai - f </ SlaveZoneI d >
  < MasterZone Id > cn - shanghai - g </ MasterZone Id >
</ AvailableR esource >
</ AvailableR esources >
</ DescribeAv ailableRes ource >

```

JSON format

```

{
  " RequestId ":" 173B0EEA - 22ED - 4EE2 - 91F9 - 3A1CDDFFBB BA ",
  " AvailableR esources ":{
    " AvailableR esource ":[
      {

```

```

" SlaveZoneId ":" cn - shanghai - b ",
" SupportResources ":{
  " SupportResource ":[
    {
      " AddressIPv4 ersion ":" ipv4 ",
      " AddressType  e ":" classic_in 'ternet "
    },
    {
      " AddressIPv4 ersion ":" ipv4 ",
      " AddressType  e ":" classic_in 'tranet "
    },
    {
      " AddressIPv4 ersion ":" ipv4 ",
      " AddressType  e ":" vpc "
    }
  ]
},
" MasterZoneId ":" cn - shanghai - a "
},
{
  " SlaveZoneId ":" cn - shanghai - a ",
  " SupportResources ":{
    " SupportResource ":[
      {
        " AddressIPv4 ersion ":" ipv4 ",
        " AddressType  e ":" classic_in 'ternet "
      },
      {
        " AddressIPv4 ersion ":" ipv4 ",
        " AddressType  e ":" classic_in 'tranet "
      },
      {
        " AddressIPv4 ersion ":" ipv4 ",
        " AddressType  e ":" vpc "
      }
    ]
  },
  " MasterZoneId ":" cn - shanghai - b "
},
{
  " SlaveZoneId ":" cn - shanghai - c ",
  " SupportResources ":{
    " SupportResource ":[
      {
        " AddressIPv4 ersion ":" ipv4 ",
        " AddressType  e ":" classic_in 'ternet "
      },
      {
        " AddressIPv4 ersion ":" ipv4 ",
        " AddressType  e ":" classic_in 'tranet "
      },
      {
        " AddressIPv4 ersion ":" ipv4 ",
        " AddressType  e ":" vpc "
      }
    ]
  },
  " MasterZoneId ":" cn - shanghai - b "
},
{
  " SlaveZoneId ":" cn - shanghai - b ",
  " SupportResources ":{
    " SupportResource ":[
      {

```

```

    " AddressIPV ersion ":" ipv4 ",
    " AddressTyp e ":" classic_in ternet "
  },
  {
    " AddressIPV ersion ":" ipv4 ",
    " AddressTyp e ":" classic_in tranet "
  },
  {
    " AddressIPV ersion ":" ipv4 ",
    " AddressTyp e ":" vpc "
  }
]
},
" MasterZone Id ":" cn - shanghai - c "
},
{
  " SlaveZoneI d ":" cn - shanghai - e ",
  " SupportRes ources ":{
    " SupportRes ource ":[
      {
        " AddressIPV ersion ":" ipv4 ",
        " AddressTyp e ":" classic_in ternet "
      },
      {
        " AddressIPV ersion ":" ipv4 ",
        " AddressTyp e ":" classic_in tranet "
      },
      {
        " AddressIPV ersion ":" ipv4 ",
        " AddressTyp e ":" vpc "
      }
    ]
  },
  " MasterZone Id ":" cn - shanghai - d "
},
{
  " SlaveZoneI d ":" cn - shanghai - f ",
  " SupportRes ources ":{
    " SupportRes ource ":[
      {
        " AddressIPV ersion ":" ipv4 ",
        " AddressTyp e ":" classic_in ternet "
      },
      {
        " AddressIPV ersion ":" ipv4 ",
        " AddressTyp e ":" classic_in tranet "
      },
      {
        " AddressIPV ersion ":" ipv4 ",
        " AddressTyp e ":" vpc "
      }
    ]
  },
  " MasterZone Id ":" cn - shanghai - e "
},
{
  " SlaveZoneI d ":" cn - shanghai - d ",
  " SupportRes ources ":{
    " SupportRes ource ":[
      {
        " AddressIPV ersion ":" ipv4 ",
        " AddressTyp e ":" classic_in ternet "
      },
    ],
  },
  {

```

```

    " AddressIPV ersion ":" ipv4 ",
    " AddressTyp e ":" classic_in tranet "
  },
  {
    " AddressIPV ersion ":" ipv4 ",
    " AddressTyp e ":" vpc "
  },
  {
    " AddressIPV ersion ":" ipv6 ",
    " AddressTyp e ":" classic_in ternet "
  }
]
},
" MasterZone Id ":" cn - shanghai - e "
},
{
  " SlaveZoneI d ":" cn - shanghai - e ",
  " SupportRes ources ":{
    " SupportRes ource ":[
      {
        " AddressIPV ersion ":" ipv4 ",
        " AddressTyp e ":" classic_in ternet "
      },
      {
        " AddressIPV ersion ":" ipv4 ",
        " AddressTyp e ":" classic_in tranet "
      },
      {
        " AddressIPV ersion ":" ipv4 ",
        " AddressTyp e ":" vpc "
      }
    ]
  },
  " MasterZone Id ":" cn - shanghai - f "
},
{
  " SlaveZoneI d ":" cn - shanghai - g ",
  " SupportRes ources ":{
    " SupportRes ource ":[
      {
        " AddressIPV ersion ":" ipv4 ",
        " AddressTyp e ":" classic_in ternet "
      },
      {
        " AddressIPV ersion ":" ipv4 ",
        " AddressTyp e ":" classic_in tranet "
      },
      {
        " AddressIPV ersion ":" ipv4 ",
        " AddressTyp e ":" vpc "
      }
    ]
  },
  " MasterZone Id ":" cn - shanghai - f "
},
{
  " SlaveZoneI d ":" cn - shanghai - f ",
  " SupportRes ources ":{
    " SupportRes ource ":[
      {
        " AddressIPV ersion ":" ipv4 ",
        " AddressTyp e ":" classic_in ternet "
      },
    ],
  },
  {

```

```
    " AddressIPV ersion ":" ipv4 ",
    " AddressTyp e ":" classic_in tranet "
  },
  {
    " AddressIPV ersion ":" ipv4 ",
    " AddressTyp e ":" vpc "
  }
]
},
" MasterZone Id ":" cn - shanghai - g "
}
]
}
}
```

Error codes

[See common error codes.](#)

18 Tags

18.1 RemoveTags

Remove tags of an SLB instance.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	RemoveTags	The name of this action. Value: RemoveTags
LoadBalancerId	String	Yes	139a00604ad-cn-east-hangzhou-01	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou-d	The ID of the region to which the SLB instance belongs.
Tags	String	Yes	[{"TagKey": "Key1", "TagValue": "Value1"}, {"TagKey": "Key2", "TagValue": "Value2"}]	A list of tags to be removed.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = RemoveTags
& LoadBalancerId = 139a00604a d - cn - east - hangzhou - 01
& RegionId = cn - hangzhou
& Tags =[{" TagKey ":" Key1 "," TagValue ":" Value1 "} {" TagKey ":"
Key2 "," TagValue ":" Value2 "}]
&< CommonParameters >
```

Response examples

XML format

```
< RemoveTags Response >
  < RequestId > 365F4154 - 92F6 - 4AE4 - 92F8 - 7FF34B5407 10 </
  RequestId >
</ RemoveTags Response >
```

JSON format

```
{
  " RequestId ":" 365F4154 - 92F6 - 4AE4 - 92F8 - 7FF34B5407 10 "
}
```

Error codes

[See common error codes.](#)

18.2 AddTags

Adds tags to an SLB instance.

Limits

Before you call this API, note the following limits:

- You can add up to 10 tags to each SLB instance.
- You can add up to five pairs of tags at a time.
- All the tags and keys added to an SLB instance must be unique.
- If you add a tag of which the key is the same as that of an existing tag, but the value is different, the new tag overwrites the existing one.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	AddTags	The name of this action. Value: AddTags
LoadBalancerId	String	Yes	139a00604ad-cn-east-hangzhou-	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs.
Tags	String	Yes	[{"TagKey": "Key1", "TagValue": "Value1"}, {"TagKey": "Key2", "TagValue": "Value2"}]	A list of tags to be added.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = AddTags
& LoadBalancerId = 139a00604ad - cn - east - hangzhou -
& RegionId = cn - hangzhou
& Tags =[{" TagKey ":" Key1 "," TagValue ":" Value1 "} {" TagKey ":"
Key2 "," TagValue ":" Value2 "} ]
&< CommonParameters >
```

Response examples

XML format

```
< AddTagsResponse >
```

```
< RequestId > 365F4154 - 92F6 - 4AE4 - 92F8 - 7FF34B5407 10 </
RequestId >
</ AddTagsRes ponse >
```

JSON format

```
{
  "RequestId ":" 365F4154 - 92F6 - 4AE4 - 92F8 - 7FF34B5407 10 "
}
```

Error codes

[See common error codes.](#)

18.3 DescribeTags

Queries details of specified tags.

Before you call this API, note the following:

- You can use the SLB instance ID, TagKey, or TagValue to search for tags that meet your search conditions.
- The relationship between the conditions is "AND". Only tags that meet all the specified conditions will be returned.
- If you specify a TagKey without specifying a TagValue, all tags associated with the TagKey will be queried.
- A TagValue must be specified with a TagKey. However, a TagKey can be specified without a TagValue.
- If a TagKey/TagValue pair is specified, then exact matching is performed.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeTags	The name of this action. Value: DescribeTags
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs.

Parameter	Type	Required?	Example value	Description
DistinctKey	Boolean	No	false	Optional. Indicates whether it is DistinctKey. Valid values: true false
LoadBalancerId	String	No	139a00604ad-cn-east-hangzhou-01	Optional. The ID of the SLB instance.
PageNumber	Integer	No	1	Optional. The page number of the SLB instance list. Initial value: 1. Default value: 1
PageSize	Integer	No	50	Optional. The number of results per page. Default value: 50. Maximum value: 100
Tags	String	No	[{"TagKey": "Key1", "TagValue": "Value1"}, {"TagKey": "Key2", "TagValue": "Value2"}]	Optional. A list of tags to query.

Response parameters

Parameter	Type	Example value	Description
TagSets			The list of tags.
└ TagKey	String	test	The tag key.
└ TagValue	String	api	The tag value.
└ InstanceCount	Integer	10	The total number of SLB instances with which the tag is associated.

Parameter	Type	Example value	Description
PageSize	Integer	50	Default value: 50. Maximum value: 100
PageNumber	Integer	1	The page number of the tag list. Initial value: 1. Default value: 1
TotalCount	Integer	1	The total number of tags that meet your search conditions.
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = DescribeTags
& RegionId = cn - hangzhou
&< CommonParameters >
```

Response examples

XML format

```
< DescribeTagsResponse >
  < RequestId > 365F4154 - 92F6 - 4AE4 - 92F8 - 7FF34B5407 10 </
RequestId >
  < TagSets >
    < TagSet >
      < TagKey > test </ TagKey >
      < TagValue > api </ TagValue >
    </ TagSet >
  </ TagSets >
  < PageSize > 50 </ PageSize >
  < PageNumber > 1 </ PageNumber >
  < TotalCount > 1 </ TotalCount >
</ DescribeTagsResponse >
```

JSON format

```
{
  " RequestId ":" 365F4154 - 92F6 - 4AE4 - 92F8 - 7FF34B5407 10 ",
  " TagSets ":{
    " PageNumber ": 1 ,
    " TotalCount ": 1 ,
    " PageSize ": 50 ,
    " TagSet ":[
      {
```

```
    " TagValue ":" api ",  
    " TagKey ":" test "  
  }  
]  
}  
}
```

Error codes

[See common error codes.](#)

19 Forwarding rules

19.1 CreateRules

Adds forwarding rules for an HTTP or HTTPS listener.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	CreateRules	The name of this action. Value: CreateRules
ListenerPort	Integer	Yes	443	The frontend listener port used by the SLB instance. Value range: 1 to 65535
LoadBalancerId	String	Yes	lb-bp1ca0zt07t934wxexyxo	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs. To query the region ID, call DescribeRegions.

Parameter	Type	Required?	Example value	Description
RuleList	String	Yes	[{"RuleName": "Rule2", "Domain": "test.com", "VServerGroupId": "rsp-bp114nimo4kl9"}]	The forwarding rules to be added. You can add up to 10 forwarding rules in one request. Each rule contains the following parameters: • RuleName: This parameter is required and of the string type. The name of the forwarding rule. The name must be 1 to 40 characters in length and can contain letters, numbers, hyphens (-), forward slashes (/), periods (.), and underscores (_). In a listener, the name of each rule must be unique. • Domain: This parameter is optional and of the string type. It specifies the domain name associated with the forwarding rule. • Url: This parameter is optional and of the string type. It specifies the access path, which must be 1 to 80 characters in length and can contain letters, numbers, hyphens (-), forward slashes (/), periods (.), percent signs (%), question marks (?), number signs (#), and ampersands (&). • VServerGroupId: This parameter is optional and of the string type. The ID of the destination VServer group of the forwarding rule. When you configure a forwarding rule, you must set at least this parameter or the Domain parameter, or both. In a listener, the combination

Response parameters

Parameter	Type	Example value	Description
Rules			A list of forwarding rules.
[⌞] RuleId	String	rule-bp12jzy0hv io3	The ID of the forwarding rule.
[⌞] RuleName	String	Rule2	The name of the forwarding rule.
RequestId	String	9DEC9C28-AB05 -4DDF-9A78- 6B08EC9CE18C	The ID of the request.

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = CreateRule s
& ListenerPort = 443
& LoadBalancerId = lb - bp1ca0zt07 t934wxeyx o
& RegionId = cn - hangzhou
& RuleList = [ { " RuleName " : " Rule2 ", " Domain " : " test . com ", "
  VServerGroupId " : " rsp - bp114nimo4 kl9 " } ]
&< CommonParameters >
```

Response examples

XML format

```
< CreateRule sResponse >
  < RequestId > D63E42FB - F963 - 4EE5 - 9B32 - 05602BF351 F3 </
  RequestId >
  < Rules >
    < Rule >
      < RuleId > rule - bp12jzy0hv io3 </ RuleId >
      < RuleName > Rule3 </ RuleName >
    </ Rule >
  </ Rules >
</ CreateRule sResponse >
```

JSON format

```
{
  " RequestId " : " D63E42FB - F963 - 4EE5 - 9B32 - 05602BF351 F3 ",
  " Rules " : {
    " Rule " : [
      {
        " RuleId " : " rule - bp12jzy0hv io3 ",
        " RuleName " : " Rule3 "
      }
    ]
  }
}
```

```
}  
}
```

Error codes

See [common error codes](#).

19.2 DeleteRules

Deletes one or more forwarding rules.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DeleteRules	The name of this action. Value: DeleteRules
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs. To query the region ID, call DescribeRegions .
RuleIds	String	Yes	["rule-bp1z9cee47oip","rule-bp1tucxr06qu4"]	A list of the forwarding rules to be deleted

Response parameters

Parameter	Type	Example value	Description
RequestId	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = DeleteRule s
& RegionId = cn - hangzhou
& RuleIds =[ " rule - bp1z9cee47 oip "," rule - bp1tucxr06 qu4 " ]
&< CommonPara meters >
```

Response examples

XML format

```
< DeleteRule sResponse >
  < RequestId > 9DEC9C28 - AB05 - 4DDF - 9A78 - 6B08EC9CE1 8C </
  RequestId >
</ DeleteRule sResponse >
```

JSON format

```
{
  " RequestId ":" 9DEC9C28 - AB05 - 4DDF - 9A78 - 6B08EC9CE1 8C "
}
```

Error codes

[See common error codes.](#)

19.3 SetRule

Changes the destination VServer group of a forwarding rule.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	SetRule	The name of this action. Value: SetRule

Parameter	Type	Required?	Example value	Description
RegionId	String	Yes	cn-hangzhou-d	The ID of the region to which the SLB instance belongs. To query the region ID, call DescribeRegions .
RuleId	String	Yes	rule-3ejhktkaeu	The ID of the forwarding rule.
VServerGroupId	String	Yes	rsp-cige6j5e7p	The ID of the destination VServer group of the forwarding rule.
Cookie	String	No	23ffsa	Optional. The cookie configured on the backend server. The cookie must be 1 to 200 characters in length and can only contain ASCII English letters and numbers. It cannot contain commas (,), semicolons (;), or spaces, nor can it begin with \$. This parameter is required and takes effect only when StickySession is set to on and StickySessionType is set to server.

Parameter	Type	Required?	Example value	Description
CookieTimeout	Integer	No	123	Optional. The timeout period of the cookie. Value range: 1 to 86400. Unit: seconds This parameter is required and takes effect only when StickySession is set to on and StickySessionType is set to insert.
HealthCheck	String	No	off	Optional. Indicates whether to enable the health check function. Valid values: on off  Note: This parameter is required and takes effect only when ListenerSync is set to off.
HealthCheckConnectPort	Integer	No	80	Optional. The port used for health checks. Value range: 1 to 65535  Note: This parameter takes effect only when HealthCheck is set to on.

Parameter	Type	Required?	Example value	Description
HealthCheckDomain	String	No	domain	Optional. The domain name used for health checks. Valid values: · <code>\$_ip</code>: the private IP address of the backend server. If <code>\$_ip</code> is specified or <code>HealthCheckDomain</code> is not specified, SLB uses the private IP addresses of backend servers as the domain names for health checks. · <code>domain</code>: domain name, which must be 1 to 80 characters in length and can contain letters, numbers, periods (.), and hyphens (-).  Note: This parameters takes effect only when <code>HealthCheck</code> is set to on.

Parameter	Type	Required?	Example value	Description
HealthCheckHttpCode	String	No	http_2xx	Optional. The HTTP status code indicating that the health check is normal. Separate multiple HTTP status codes by using commas (,). This parameter is required when HealthCheck is set to on. Valid values: http_2xx http_3xx http_4xx http_5xx. Default value: http_2xx  Note: This parameter takes effect only when HealthCheck is set to on.
HealthCheckInterval	Integer	No	20	Optional. The time interval between two consecutive health checks. This parameter is required when HealthCheck is set to on. Value range: 1 to 50. Unit: seconds  Note: This parameter takes effect only when HealthCheck is set to on.

Parameter	Type	Required?	Example value	Description
HealthCheckTimeout	Integer	No	20	Optional. The length of time to wait for the response from the health check. If the backend ECS does not send a response within the specified time, the health check fails.  Note: This parameter is required and takes effect only when HealthCheck is set to on. Value range: 1 to 300. Unit: seconds
HealthCheckURI	String	No	/example	Optional. The URI used for health checks. This parameter is required and takes effect only when HealthCheck is set to on.
HealthyThreshold	Integer	No	12	Optional. The number of consecutive successes of health checks before a backend server is declared as healthy (from failure to success). This parameter is required and takes effect only when HealthCheck is set to on. Value range: 2 to 10.

Parameter	Type	Required?	Example value	Description
ListenerSync	String	No	off	Optional. Indicates whether a forwarding rule inherits the settings of health checks, session persistence, and scheduling algorithm from a listener. Valid values: on off · off: The rule customizes health check and session persistence settings instead of inheriting them from the listener. · on: The rule inherits the settings from the listener.
RuleName	String	No	doctest	Optional. The name of the forwarding rule. The name must be 1 to 80 characters in length and can contain letters, numbers, hyphens (-), forward slashes (/), periods (.), and underscores (_).  Note: In a listener, the name of each rule must be unique.

Parameter	Type	Required?	Example value	Description
Scheduler	String	No	wrr	This parameter is required and takes effect only when ListenerSync is set to off. Optional. The scheduling algorithm. Valid values: · wrr (default): Backend servers with higher weights receive more requests than those with smaller weights. · wlc: A server with a higher weight receives more requests. When the weight values of two backend servers are the same, the server with a smaller number of connections is more likely to be polled. · rr: Requests are evenly and sequentially distributed to backend servers.
StickySession	String	No	off	This parameter is required and takes effect only when ListenerSync is set to off. Optional. Indicates whether to enable session persistence. Valid values: on off.

Parameter	Type	Required?	Example value	Description
StickySessionType	String	No	insert	Optional. The method used to handle the cookie. This parameter is required and takes effect only when StickySession is set to on. Valid values: · insert: Insert the cookie. SLB adds a cookie to the first response from the backend server (inserts SERVERID in the HTTP/HTTPS response packet). The next request contains the cookie and the listener distributes the request to the same backend server. · server: Rewrite the cookie. SLB overwrites the original cookie when a new cookie is set. The next time the client carries the new cookie to access SLB, the listener distributes the request to the previously recorded backend server.

Parameter	Type	Required?	Example value	Description
UnhealthyThreshold	Integer	No	1	Optional. The number of consecutive failures of health checks before a backend server is declared as unhealthy (from success to failure). This parameter is required and takes effect only when HealthCheck is set to on. Value range: 2 to 10.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = SetRule
& RegionId = cn - hangzhou
& RuleId = rule - 3ejhktaeu
& < CommonParameters >
```

Response examples

XML format

```
< SetRuleResponse >
  < RequestId > 9DEC9C28 - AB05 - 4DDF - 9A78 - 6B08EC9CE1 8C </
  RequestId >
</ SetRuleResponse >
```

JSON format

```
{
  "RequestId": "9DEC9C28 - AB05 - 4DDF - 9A78 - 6B08EC9CE1 8C"
}
```

Error codes

[See common error codes.](#)

19.4 DescribeRuleAttribute

Queries the settings of a forwarding rule.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeRuleAttribute	The name of this action. Value: DescribeRuleAttribute
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs. To query the region ID, call DescribeRegions .
RuleId	String	Yes	rule-bp1efemp9suk5	The ID of the forwarding rule.

Response parameters

Parameter	Type	Example value	Description
RuleName	String	Rule1	The name of the forwarding rule.
LoadBalancerId	String	lb-bp1ca0zt07t934wxzeyxo	The ID of the SLB instance.
ListenerPort	String	90	The frontend listener port used by the SLB instance.

Parameter	Type	Example value	Description
Domain	String	test.com	The domain name of the forwarding rule.
Url	String	/cache	The forwarding rule path.
VServerGroupId	String	rsp-cige6j5e7p	The ID of the VServer group associated with the forwarding rule.
Cookie	String	wwe	The cookie configured on the backend server. The cookie must be 1 to 200 characters in length and can only contain ASCII English letters and numbers. It cannot contain commas (,), semicolons (;), or spaces, nor can it begin with \$. This parameter is required and takes effect only when StickySession is set to on and StickySessionType is set to server.
CookieTimeout	Integer	12	Timeout period of the cookie. Value range: 1 to 86400. Unit: seconds  Note: This parameter is required and takes effect only when StickySession is set to on and StickySessionType is set to insert.

Parameter	Type	Example value	Description
HealthCheck	String	off	Indicates whether to enable the health check function. Valid values: on off  Note: This parameter takes effect when ListenerSync is set to off. Listener settings prevail when this parameter is set to on.
HealthCheckConnectPort	Integer	23	The port of the backend server used for health checks. Value range: 1 to 65535  Note: This parameter takes effect when HealthCheck is set to on. By default, backend listener settings prevail if this parameter retains empty and HealthCheck is set to on.

Parameter	Type	Example value	Description
HealthCheckDomain	String	www.example.com	The domain name used for health checks. Valid values: · <code>\$_ip</code>: the private IP address of the backend server. If the IP address is specified or this parameter is not specified, SLB uses the private IP addresses of backend servers as the domain names for health checks. · <code>domain</code>: The domain name must be 1 to 80 characters in length, and can only contain letters, numbers, periods (.), and hyphens (-).  Note: This parameter takes effect when HealthCheck is set to on.
HealthCheckHttpCode	String	http_3xx	The HTTP status code indicating that the health check is normal. Separate multiple status codes by using commas (,). Default value: <code>http_2xx</code> Valid values: <code>http_2xx</code> <code>http_3xx</code> <code>http_4xx</code> <code>http_5xx</code>  Note: This parameter takes effect when HealthCheck is set to on.
HealthCheckInterval	Integer	34	The time interval between two consecutive health checks. Value range: 1 to 50. Unit: seconds  Note: This parameter takes effect when HealthCheck is set to on.

Parameter	Type	Example value	Description
HealthCheckTimeout	Integer	34	The length of time to wait for the response from a health check. If the backend ECS instance does not send a correct response within the specified time, the health check fails. Value range: 1 to 300. Unit: seconds  Note: If the value of HealthCheckTimeout is smaller than that of HealthCheckInterval, the parameter HealthCheckTimeout is invalid, and the timeout is set to the value of HealthCheckInterval. This parameter takes effect when HealthCheck is set to on.
HealthCheckURI	String	10.21.22.1	The URI used for health checks.  Note: This parameter takes effect when HealthCheck is set to on.
HealthyThreshold	Integer	2	The number of consecutive successes of health checks before a backend server is declared as healthy (from failure to success). Value range: 2 to 10  Note: This parameter takes effect when HealthCheck is set to on.

Parameter	Type	Example value	Description
ListenerSync	String	off	Indicates whether a forwarding rule inherits the settings of health checks, session persistence, and scheduling algorithm from a listener. Valid values: on off · off: The rule customizes health check and session persistence settings instead of inheriting them from the listener. · on: The rule inherits the settings from the listener.
RequestId	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.
RuleId	String	rule-hfgnd*****	The ID of the forwarding rule.

Parameter	Type	Example value	Description
Scheduler	String	wrr	The algorithm used to distribute traffic. Value values: • wrr (default): Backend servers with higher weights receive more requests than those with smaller weights. • wlc: A server with a higher weight receives more requests. When the weight values of two backend servers are the same, the server with a smaller number of connections is more likely to be polled. • rr: Requests are evenly and sequentially distributed to backend servers.  Note: This parameter takes effect when ListenerSync is set to off. Listener settings prevail when this parameter is set to on.
StickySession	String	off	Indicates whether to enable session persistence. Valid values: on off  Note: This parameter is required and takes effect when ListenerSync is set to off. Listener settings take precedence when this parameter is set to on.

Parameter	Type	Example value	Description
StickySessionType	String	insert	The method used to handle the cookie. Valid values: · insert: Insert the cookie. SLB adds a cookie to the first response from the backend server (inserts SERVERID in the HTTP and HTTPS response packet). The next request will contain the cookie and the listener will distribute the request to the same backend server. · server: Rewrite the Cookie. SLB will overwrite the original cookie when a new cookie is set. The next time the client carries the new cookie to access the SLB instance, the listener will distribute the request to the previously recorded backend server.  Note: This parameter takes effect when StickySession is set to on.
UnhealthyThreshold	Integer	3	The number of consecutive failures of health checks before a backend server is declared as unhealthy (from success to failure). Value range: 2 to 10  Note: This parameter takes effect when HealthCheck is set to on.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = DescribeRuleAttribute
& RegionId = cn - hangzhou
& RuleId = rule - bp1efemp9s uk5
&< CommonParameters >
```

Response examples

XML format

```
< DescribeRuleAttributeResponse >
  < Domain > test . com </ Domain >
  < VServerGroupId > rsp - bp114nimo4 kl9 </ VServerGroupId >
  < LoadBalancerId > lb - bp1ca0zt07 t934wxezyx o </ LoadBalancerId >
  < RuleName > Rule2 </ RuleName >
  < ListenerPort > 90 </ ListenerPort >
  < RequestId > DB3C28EE - 9A6C - 4FFA - 8759 - 4ED8346A67 5E </
RequestId >
  < ListenerSync > on </ ListenerSync >
</ DescribeRuleAttributeResponse >
```

JSON format

```
{
  "Domain ":" test . com ",
  "RequestId ":" DB3C28EE - 9A6C - 4FFA - 8759 - 4ED8346A67 5E ",
  "VServerGroupId ":" rsp - bp114nimo4 kl9 ",
  "LoadBalancerId ":" lb - bp1ca0zt07 t934wxezyx o ",
  "RuleName ":" Rule2 ",
  "ListenerSync ":" on ",
  "ListenerPort ": 90
}
```

Error codes

[See common error codes.](#)

19.5 DescribeRules

Queries the forwarding rules that have been configured for a listener.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeRules	The name of this action. Value: DescribeRules
ListenerPort	Integer	Yes	90	The frontend listener port used by the SLB instance. Value range: 1 to 65535
LoadBalancerId	String	Yes	lb-bp1ca0zt07t934wxeyxo	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou-d	The ID of the region to which the SLB instance belongs. To query the region ID, call DescribeRegions .

Response parameters

Parameter	Type	Example value	Description
RequestId	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.
Rules			A list of forwarding rules.
└─RuleId	String	rule-tybqi6qkp8	The ID of the forwarding rule.

Parameter	Type	Example value	Description
<code>RuleName</code>	String	Rule2	The name of the forwarding rule . The name is 1 to 80 characters in length and can contain letters , numbers, hyphens (-), forward slashes (/), periods (.), and underscores (_).  Note: In a listener, the name of each rule is unique.
<code>Domain</code>	String	test.com	The domain name associated with the forwarding rule.
<code>Url</code>	String	/cache	The request path associated with the forwarding rule.
<code>VServerGroupId</code>	String	rsp-6cejzlld7	The ID of the destination VServer group associated with the forwarding rule.
<code>Cookie</code>	String	23	The cookie configured on the backend server. The cookie is a string of 1 to 200 characters and only contains ASCII letters and numbers. It does not contain commas (,), semicolons (;), or spaces, and it cannot start with a dollar sign (\$).  Note: This parameter is required and takes effect only when StickySession is set to on and StickySessionType is set to server.

Parameter	Type	Example value	Description
$\perp$ CookieTime out	Integer	56	The cookie expiration period. Value range: 1 to 86400. Unit: seconds  Note: This parameter takes effect when StickySession is set to on and StickySessionType is set to insert.
$\perp$ HealthCheck	String	off	Indicates whether the health check function is enabled. Valid values: on off  Note: This parameter takes effect when ListenerSync is set to off. Listener settings prevail when this parameter is set to on.
$\perp$ HealthCheckConnectPort	Integer	45	The port of the backend server used for health checks. Value range: 1 to 65535  Note: This parameter takes effect when HealthCheck is set to on. By default, backend listener settings prevail if this parameter retains empty and HealthCheck is set to on.

Parameter	Type	Example value	Description
$\perp$ HealthCheckDomain	String	domain	The domain name used for health checks. Valid values: · <code>\$_ip</code>: private IP address of the backend server. If the IP address is specified or this parameter is not specified, SLB uses the private IP addresses of backend servers as the domain names for health checks. · <code>domain</code>: The domain name is 1 to 80 characters in length, and only contains letters, numbers, periods (.), and hyphens (-).  Note: This parameter takes effect when HealthCheck is set to on.
$\perp$ HealthCheckHttpCode	String	http_3xx	The HTTP status code indicating that the health check is normal. Multiple status codes are separated by commas (,). Default value: <code>http_2xx</code> Valid values: <code>http_2xx</code> <code>http_3xx</code> <code>http_4xx</code> <code>http_5xx</code>  Note: This parameter takes effect when HealthCheck is set to on.

Parameter	Type	Example value	Description
$\perp$ HealthCheckInterval	Integer	5	The time interval between two consecutive health checks. Value range: 1 to 50. Unit: seconds  Note: This parameter takes effect when HealthCheck is set to on.
$\perp$ HealthCheckTimeout	Integer	34	The length of time to wait for the response from a health check. If the backend ECS instances do not send a correct response within the specified time, the health check fails. Value range: 1 to 300. Unit: seconds  Note: If the value of HealthCheckTimeout is smaller than that of HealthCheckInterval, the parameter HealthCheckTimeout is invalid, and the timeout is set to the value of HealthCheckInterval. This parameter takes effect when HealthCheck is set to on.
$\perp$ HealthCheckURI	String	/example	The URI used for health checks.  Note: This parameter takes effect when HealthCheck is set to on.

Parameter	Type	Example value	Description
<code>↳HealthyThreshold</code>	Integer	5	The number of consecutive successes of health checks before a backend server is declared as healthy (from failure to success). Value range: 2 to 10  Note: This parameter takes effect when HealthCheck is set to on.
<code>↳ListenerSync</code>	String	off	Indicates whether a forwarding rule inherits the settings of health checks, session persistence, and scheduling algorithm from a listener. Valid values: on off · off: The rule customizes health check and session persistence settings instead of inheriting them from the listener. · on: The rule inherits the settings from the listener.

Parameter	Type	Example value	Description
^L Scheduler	String	wrr	The algorithm used to distribute traffic. Valid values: • wrr (default): Backend servers with higher weights receive more requests than those with smaller weights. • wlc: A server with a higher weight receives more requests. When the weight values of two backend servers are the same, the server with a smaller number of connections is more likely to be polled. • rr: Requests are evenly and sequentially distributed to backend servers.  Note: This parameter takes effect when ListenerSync is set to off. Listener settings prevail when this parameter is set to on.
^L StickySession	String	off	Indicates whether session persistence is enabled. Valid values: on off.  Note: This parameter takes effect when ListenerSync is set to off. Listener settings prevail when this parameter is set to on.

Parameter	Type	Example value	Description
^L StickySessionType	String	insert	The method used to handle the cookie. Valid values: · insert: Insert the Cookie. SLB adds a cookie to the first response from the backend server (inserts SERVERID in the HTTP/HTTPS response packet). The next request will contain the cookie and the listener will distribute the request to the same backend server. · server: Rewrite the cookie. SLB will overwrite the original cookie when a new cookie is set. The next time the client carries the new cookie to access the SLB instance, the listener will distribute the request to the previously recorded backend server.  Note: This parameter takes effect when StickySession is set to on.
^L UnhealthyThreshold	Integer	2	The number of consecutive failures of health checks on the same ECS instance before a backend server is declared as unhealthy (from success to failure). Value range: 2 to 10  Note: This parameter takes effect when HealthCheck is set to on.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = DescribeRules
& ListenerPort = 90
& LoadBalancerId = lb - bp1ca0zt07 - t934wxezyx - o
& RegionId = cn - hangzhou
&< CommonParameters >
```

Response examples

XML format

```
< DescribeRulesResponse >
  < RequestId > 11D87D83 - 741B - 4F8A - 8AAD - FD6867FDE7 - B2 </
RequestId >
  < Rules >
    < Rule >
      < Url > / image </ Url >
      < Domain > example . com </ Domain >
      < VServerGroupId > rsp - bp114nimo4 - kl9 </ VServerGroupId >
      < RuleId > rule - bp1supbxos - 2u3 </ RuleId >
      < RuleName > auto_named_rule </ RuleName >
      < ListenerSync > on </ ListenerSync >
    </ Rule >
    < Rule >
      < Domain > test . com </ Domain >
      < VServerGroupId > rsp - bp114nimo4 - kl9 </ VServerGroupId >
      < RuleId > rule - bp1efemp9s - uk5 </ RuleId >
      < RuleName > Rule2 </ RuleName >
      < ListenerSync > on </ ListenerSync >
    </ Rule >
    < Rule >
      < Domain > test2 . com </ Domain >
      < VServerGroupId > rsp - bp114nimo4 - kl9 </ VServerGroupId >
      < RuleId > rule - bp12jzy0hv - io3 </ RuleId >
      < RuleName > Rule3 </ RuleName >
      < ListenerSync > on </ ListenerSync >
    </ Rule >
  </ Rules >
</ DescribeRulesResponse >
```

JSON format

```
{
  "RequestId": "11D87D83 - 741B - 4F8A - 8AAD - FD6867FDE7 - B2",
  "Rules": [
    {
      "Rule": {
        "Domain": "example . com",
        "Url": "/ image",
        "RuleId": "rule - bp1supbxos - 2u3",
        "VServerGroupId": "rsp - bp114nimo4 - kl9",
        "RuleName": "auto_named_rule",
        "ListenerSync": "on"
      }
    },
    {
      "Domain": "test . com",
```

```
" RuleId ":" rule - bp1efemp9s uk5 ",
" VServerGro upId ":" rsp - bp114nimo4 kl9 ",
" RuleName ":" Rule2 ",
" ListenerSy nc ":" on "
},
{
" Domain ":" test2 . com ",
" RuleId ":" rule - bp12jzy0hv io3 ",
" VServerGro upId ":" rsp - bp114nimo4 kl9 ",
" RuleName ":" Rule3 ",
" ListenerSy nc ":" on "
}
]
}
}
```

Error codes

[See common error codes.](#)

20 Access control

20.1 CreateAccessControlList

Creates an access control list.

You can create multiple access control lists. Each list can contain multiple IP addresses and CIDR blocks. Before you create an access control list, note the following limits:

- Each Alibaba Cloud account can create a maximum of 50 access control lists per region.
- Each Alibaba Cloud account can add a maximum of 50 IP addresses at a time.
- Each access control list can contain a maximum of 300 IP entries.
- Each listener can be associated with a maximum of 50 access control lists.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	CreateAccessControlList	The name of this action. Value: CreateAccessControlList
AclName	String	Yes	rule1	The name of the access control list. The name must be unique in a region.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the access control list belongs.

Parameter	Type	Required?	Example value	Description
AddressIPVersion	String	No	ipv4	Optional. The IP version, which can be set to ipv4 or ipv6.  Note: Currently, IPv6 instances are supported only in the following zones: zones E and F in the China (Hangzhou) region, zones F and G in the China (Beijing) region, all zones in the China (Shanghai) region, and zones D and E in the China (Shenzhen) region. Also, the IPv6 instances must be performance-guaranteed instances.

Response parameters

Parameter	Type	Example value	Description
AclId	String	acl-rj9xpzxcwxrukoi65yw3	The ID of the access control list.
RequestId	String	988CB45E-1643-48C0-87B4-928DDF77EA49	The ID of the request.

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = CreateAccessControlList
& AclName = rule1
& RegionId = cn - hangzhou
& < CommonParameters >
```

Response examples

XML format

```
< CreateAccessControlListResponse >
  < RequestId > 988CB45E - 1643 - 48C0 - 87B4 - 928DDF77EA 49 </
  RequestId >
```

```
< AclId > acl - rj9xpxzcxw rukois65yw 3 </ AclId >
</ CreateAccessControlListResponse >
```

JSON format

```
{
  " AclId ":" acl - rj9xpxzcxw rukois65yw 3 ",
  " RequestId ":" 988CB45E - 1643 - 48C0 - 87B4 - 928DDF77EA 49 "
}
```

Error codes

[See common error codes.](#)

20.2 DeleteAccessControlList

Deletes an access control list.



Note:

An access control list can be deleted only after it is disassociated from a listener.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DeleteAccessControlList	The name of this action. Value: DeleteAccessControlList
AclId	String	Yes	acl-bp1l0kk4gxce43kz*****	The ID of the access control list to be deleted.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the access control list belongs. To query the region ID, call DescribeRegions .

Response parameters

Parameter	Type	Example value	Description
RequestId	String	988CB45E-1643-48C0-87B4-928DDF77EA49	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = DeleteAcce ssControll ist
& AclId = acl - bp1l0kk4gx ce43kz *****
& RegionId = cn - hangzhou
&< CommonPara meters >
```

Response examples

XML format

```
< DeleteAcce ssControll istRespons e >
  < RequestId > 988CB45E - 1643 - 48C0 - 87B4 - 928DDF77EA 49 </
  RequestId >
</ DeleteAcce ssControll istRespons e >
```

JSON format

```
{
  " RequestId ":" 988CB45E - 1643 - 48C0 - 87B4 - 928DDF77EA 49 "
}
```

Error codes

[See common error codes.](#)

20.3 DescribeAccessControlLists

Queries created access control lists.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeAccessControlLists	The name of this action. Value: DescribeAccessControlLists
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the access control list belongs. To query the region ID, call DescribeRegions .
ACLName	String	No	rule1	Optional. The name of the access control list.
AddressIPVersion	String	No	ipv4	Optional. The IP address type of the SLB instance associated with the access control list. Valid values: · ipv4: The IP address type of the SLB instance is IPv4. · ipv6: The IP address type of the SLB instance is IPv6.
PageNumber	Integer	No	1	Optional. The page number of the access control list. Default value: 1
PageSize	Integer	No	10	Optional. The number of rows per page for a paged query. Maximum value: 50. Default value: 10
ResourceGroupId	String	No	rg-atstuj3rtoptyui	Optional. The ID of the enterprise resource group.

Response parameters

Parameter	Type	Example value	Description
Acls			A list of access control lists that are queried.
└AclId	String	acl-bp1l0kk4gxce43kzet04s	The ID of an access control list.
└AclName	String	rule1	The name of the access control list.
└AddressIPVersion	String	ipv4	The IP address type of the associated SLB instance.
RequestId	String	B646EF-6147-4566	The ID of the request.

Examples

Request example

```
/? Action = DescribeAccessControlLists
& RegionId = cn-hangzhou
&<CommonParameters>
```

Response examples

XML format

```
<DescribeAccessControlListsResponse>
  <RequestId> 3CB646EF-6147-4566-A9D9-CE8FBE86F9 71 </
  RequestId>
  <Acls>
    <Acl>
      <AclId> acl-bp1j9vn2g7wm9wn0xassu </AclId>
      <AclName> test </AclName>
      <AddressIPVersion> ipv4 </AddressIPVersion>
    </Acl>
    <Acl>
      <AclId> acl-bp1l0kk4gxce43kzet04s </AclId>
      <AclName> doctest </AclName>
      <AddressIPVersion> ipv4 </AddressIPVersion>
    </Acl>
  </Acls>
</DescribeAccessControlListsResponse>
```

JSON format

```
{
  "RequestId": "3CB646EF-6147-4566-A9D9-CE8FBE86F9 71",
  "Acls": {
```

```

" Acl ":[
  {
    " AclId ":" acl - bp1j9vn2g7  wm9wn0xass  u ",
    " AclName ":" test ",
    " AddressIPV ersion ":" ipv4 "
  },
  {
    " AclId ":" acl - bp1l0kk4gx  ce43kzet04  s ",
    " AclName ":" doctest ",
    " AddressIPV ersion ":" ipv4 "
  }
]
}
}
}

```

Error codes

See [common error codes](#).

20.4 DescribeAccessControlListAttribute

Queries the settings of an access control list.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeAccessControlListAttribute	The name of this action. Value: DescribeAccessControlListAttribute
AclId	String	Yes	acl-bp1l0kk4gxce43kzet04s	The ID of the access control list to be queried.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the access control list belongs. To query the region ID, call DescribeRegions .
AclEntryComment	String	No	test	Optional. A note to an IP entry in the access control list.

Response parameters

Parameter	Type	Example value	Description
AclEntrys			A list of IP entries in the access control list.
└AclEntryComment	String	IP entry	A note to the IP entry in the access control list.
└AclEntryIP	String	192.168.0.1	An IP entry in the access control list.
AclId	String	acl-bp1l0kk4gxce43kzet04s	The ID of the queried access control list.
AclName	String	doctest	The name of the queried access control list.
AddressIPVersion	String	ipv4	The IP address type of the associated SLB instance.
RelatedListeners			A list of listeners that are associated with the access control list.
└AclType	String	white	The access control type: - black: Indicates a blacklist. - white: Indicates a whitelist.
└ListenerPort	Integer	443	The frontend port of the listener that is associated with the access control list.
└LoadBalancerId	String	lb-bp13jaf5qli5xmgl1miup	The ID of the SLB instance.
└Protocol	String	https	The protocol type of the listener that is associated with the access control list.

Parameter	Type	Example value	Description
RequestId	String	C9906A1D-86F7-4C9C-A369-54DA42EF206A	The ID of the request.
ResourceGroupId	String	rg- *****	The ID of the enterprise resource group.

Examples

Request example

```
/? Action = DescribeAccessControlListAttribute
& AclId = acl - bp1l0kk4gx ce43kzet04 s
& RegionId = cn - hangzhou
&< CommonParameters >
```

Response examples

XML format

```
< DescribeAccessControlListAttributeResponse >
  < AclId > acl - bp1l0kk4gx ce43kzet04 s </ AclId >
  < RelatedListeners >
    < RelatedListener >
      < AclType > white </ AclType >
      < LoadBalancerId > lb - bp13jaf5ql i5xmgl1miu p </
LoadBalancerId >
      < Protocol > https </ Protocol >
      < ListenerPort > 443 </ ListenerPort >
    </ RelatedListener >
  </ RelatedListeners >
  < AclName > doctest </ AclName >
  < RequestId > C9906A1D - 86F7 - 4C9C - A369 - 54DA42EF20 6A </
RequestId >
  < AddressIPVersion > ipv4 </ AddressIPVersion >
</ DescribeAccessControlListAttributeResponse >
```

JSON format

```
{
  "AclId": "acl - bp1l0kk4gx ce43kzet04 s",
  "RequestId": "C9906A1D - 86F7 - 4C9C - A369 - 54DA42EF20 6A",
  "AclName": "doctest",
  "RelatedListeners": {
    "RelatedListener": [
      {
        "AclType": "white",
        "LoadBalancerId": "lb - bp13jaf5ql i5xmgl1miu p",
        "Protocol": "https",
        "ListenerPort": 443
      }
    ]
  }
},
```

```
" AddressIPV ersion ":" ipv4 "  
}
```

Error codes

[See common error codes.](#)

20.5 SetAccessControlListAttribute

Modifies the name of an access control list.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required ?	Example value	Description
Action	String	Yes	SetAccessC ontrolList Attribute	The name of this action. Value: SetAccessControlListAttribute
AclId	String	Yes	acl- bp1l0kk4gx ce43kzet04s	The ID of the access control list to be modified.
AclName	String	Yes	test1	The name of the access control list to be modified.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the access control list belongs. To query the region ID, call DescribeRegions .

Response parameters

Parameter	Type	Example value	Description
AclId	String	acl-bp1l0kk4gx ce43kzet04s	The ID of the access control list.

Parameter	Type	Example value	Description
RequestId	String	988CB45E-1643-48C0-87B4-928DDF77EA49	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = SetAccessC ontrollList
Attribute
& AclId = acl - bp1l0kk4gx ce43kzet04 s
& AclName = test1
& RegionId = cn - hangzhou
&< CommonPara meters >
```

Response examples

XML format

```
< SetAccessC ontrollList AttributeR esponse >
< RequestId > 988CB45E - 1643 - 48C0 - 87B4 - 928DDF77EA 49 </
RequestId >
</ SetAccessC ontrollList AttributeR esponse >
```

JSON format

```
{
  " RequestId ":" 988CB45E - 1643 - 48C0 - 87B4 - 928DDF77EA 49 "
}
```

Error codes

[See common error codes.](#)

20.6 AddAccessControlListEntry

Adds IP entries to an access control list.

Each access control list can contain multiple IP addresses and CIDR blocks. Access control lists have the following limits:

- Each Alibaba Cloud account can add a maximum of 50 IP entries at a time.
- An access control list can contain a maximum of 300 IP entries.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	AddAccessControlListEntry	The name of this action. Value: AddAccessControlListEntry
AclId	String	Yes	acl-bp1l0kk4gxce43kze*****	The ID of the access control list to which you want to add IP entries.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the access control list belongs.
AclEntrys	String	No	[{"entry": "10.0.0.0/24", "comment": "privaterule1"}, {"entry": "192.168.0.0/16", "comment": "privaterule2"}]	Optional. The IP entries to be added to the access control list. You can add IP addresses or CIDR blocks. Use commas (,) to separate multiple IP addresses or CIDR blocks.  Note: You can add a maximum of 50 IP entries at a time.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	988CB45E-1643-48C0-87B4-928DDF77EA4	The ID of the request.

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = AddAccessControlListEntry
& AclId = acl - bp1l0kk4gxce43kze *****
& RegionId = cn - hangzhou
```

```
&< CommonParameters >
```

Response examples

XML format

```
< AddAccessControlListEntryResponse >
  < RequestId > 988CB45E - 1643 - 48C0 - 87B4 - 928DDF77EA 49 </
  RequestId >
</ AddAccessControlListEntryResponse >
```

JSON format

```
{
  "RequestId ":" 988CB45E - 1643 - 48C0 - 87B4 - 928DDF77EA 49 "
}
```

Error codes

[See common error codes.](#)

20.7 RemoveAccessControlListEntry

Deletes IP entries from an access control list.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	RemoveAccessControlListEntry	The name of this action. Value: RemoveAccessControlListEntry
AclId	String	Yes	acl-bp1l0kk4gxce43kzet04s	The ID of the access control list.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the access control list belongs. To query the region ID, call DescribeRegions .

Parameter	Type	Required?	Example value	Description
AclEntrys	String	No	[{"entry": "10.0.0.0/24", "comment": "privaterule1"}]	Optional. The IP entries to be deleted from the access control list. You can delete IP addresses or CIDR blocks. Use commas (,) to separate multiple IP entries. Note: If the access control list is associated with a listener, you cannot delete all IP entries in the access control list.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	988CB45E-1643-48C0-87B4-928DDF77EA49	The ID of the request.

Examples

Request example

```
/? Action = RemoveAccessControlListEntry
& AclId = acl - bp1l0kk4gx ce43kzet04 s
& RegionId = cn - hangzhou
& AclEntrys =[{" entry ":" 10 . 0 . 0 . 0 / 24 "," comment ":"
privaterule1 "}]
&< CommonParameters >
```

Response examples

XML format

```
< RemoveAccessControlListEntryResponse >
  < RequestId > 988CB45E - 1643 - 48C0 - 87B4 - 928DDF77EA 49 </
  RequestId >
```

```
</ RemoveAccessControlListEntryResponse >
```

JSON format

```
{  
  "RequestId": "988CB45E - 1643 - 48C0 - 87B4 - 928DDF77EA 49 "  
}
```

Error codes

[See common error codes.](#)

21 Access control (earlier version)

21.1 RemoveListenerWhiteListItem

Deletes IP addresses from a listener whitelist.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	RemoveListenerWhiteListItem	The name of this action. Value: RemoveListenerWhiteListItem
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs. To query the region ID, call DescribeRegions .
ListenerPort	Integer	Yes	80	The listening port.
LoadBalancerId	String	Yes	lb-8vb86hxix08lvsja86jaz	The ID of the SLB instance.

Parameter	Type	Required?	Example value	Description
SourceItems	String	Yes	1.1.1.1	The access control list. Both IP addresses and IP address segments (namely, CIDR blocks) are supported. Use commas (,) to separate multiple IP addresses or CIDR blocks.  Note: If all the IP addresses are deleted, the listener no longer forwards any requests.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = RemoveList enerWhiteL
istItem
& ListenerPort = 80
& LoadBalancerId = lb - 8vb86hxix0 8lvsja86ja z
& SourceItems = 1 . 1 . 1 . 1
&< CommonParameters >
```

Response examples

XML format

```
< RemoveList enerWhiteL istItemResponse >
  < RequestId > CEF72CEB - 54B6 - 4AE8 - B225 - F876FF7BA9 84 </
  RequestId >
</ RemoveList enerWhiteL istItemResponse >
```

JSON format

```
{
```

```
" RequestId ":" CEF72CEB - 54B6 - 4AE8 - B225 - F876FF7BA9 84 "
```

Error codes

[See common error codes.](#)

21.2 AddListenerWhiteListItem

Adds IP addresses to a listener whitelist.

Debug

[Use OpenAPI Explorer to perform debug operations and generate SDK code examples.](#)

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	AddListenerWhiteListItem	The name of this action. Value: AddListenerWhiteListItem
ListenerPort	Integer	Yes	80	The frontend port used by the SLB instance.
LoadBalancerId	String	Yes	139a00604ad-cn-east-hangzhou-01	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou-d	The ID of the region to which the SLB instance belongs.

Parameter	Type	Required?	Example value	Description
SourceItems	String	Yes	1.1.1.1,1.1.1.0/21	The access control list. This parameter is valid when the value of the AccessControlStatus parameter is open_white_list. Both IP addresses and IP address segments (namely, CIDR blocks) are supported . Use commas (,) to separate multiple IP addresses or CIDR blocks. 0.0.0.0 or 0.0.0.0/0 is not allowed. You can call SetListenerAccessControlStatus to set AccessControlStatus to close to disable access control.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = AddListenerWhiteList Item
& ListenerPort = 80
& LoadBalancerId = 139a00604a d - cn - east - hangzhou - 01
& SourceItems = 1 . 1 . 1 . 1 , 1 . 1 . 1 . 0 / 21
&< CommonParameters >
```

Response examples

XML format

```
< AddListene rWhiteList ItemRespon se >
  < RequestId > CEF72CEB - 54B6 - 4AE8 - B225 - F876FF7BA9 84 </
    RequestId >
</ AddListene rWhiteList ItemRespon se >
```

JSON format

```
{
  " RequestId ":" CEF72CEB - 54B6 - 4AE8 - B225 - F876FF7BA9 84 "
}
```

Error codes

[See common error codes.](#)

21.3 DescribeListenerAccessControlAttribute

Queries the access control settings of a listener.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeLi stenerAcce ssControlA ttribute	The name of this action. Value: DescribeListenerAcce ssControlAttribute
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs. To query the region ID, refer to the list of regions and zones or call DescribeRegions .
ListenerPo rt	Integer	Yes	80	The frontend port used by the SLB instance. Value range: 1 to 65535

Parameter	Type	Required?	Example value	Description
LoadBalancerId	String	Yes	lb-8vb86hxix08lvsja86jaz	The ID of the SLB instance.

Response parameters

Parameter	Type	Example value	Description
AccessControlStatus	String	open_white_list	Indicates whether access control is enabled. - open_white_list: A whitelist for access control is enabled. - close: Access control is disabled.
SourceItems	String	1.1.1.1,1.1.1.0/24	The access control list.
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = DescribeListenerAccessControlAttribute
& ListenerPort = 80
& LoadBalancerId = lb - 8vb86hxix08lvsja86jaz
& < CommonParameters >
```

Response examples

XML format

```
< DescribeListenerAccessControlAttributeResponse >
  < RequestId > 365F4154 - 92F6 - 4AE4 - 92F8 - 7FF34B540710 </
  RequestId >
    < AccessControlStatus > open_white_list </ AccessControlStatus
    >
    < SourceItems > 1 . 1 . 1 . 1 , 1 . 1 . 1 . 0 / 24 </ SourceItems
    >
</ DescribeListenerAccessControlAttributeResponse >
```

JSON format

```
{
```

```
" RequestId ":" 365F4154 - 92F6 - 4AE4 - 92F8 - 7FF34B5407 10 ",
" SourceItem s ":" 1 . 1 . 1 . 1 , 1 . 1 . 1 . 0 / 24 ",
" AccessControlStatus ":" open_white _list "
}
```

Error codes

[See common error codes.](#)

21.4 SetListenerAccessControlStatus

Enables or disables the access control function for a listener.

Debug

Use [OpenAPI Explorer](#) to perform debug operations and generate SDK code examples.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	SetListenerAccessControlStatus	The name of this action. Value: SetListenerAccessControlStatus
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs. To query the region ID, call DescribeRegions .

Parameter	Type	Required?	Example value	Description
AccessControlStatus	String	Yes	open_white_list	Indicates whether to enable access control. Valid values: - open_white_list: Enable a whitelist for access control. - close: Disable access control.  Note: When the access control function is enabled, you must configure a whitelist of IP addresses. Otherwise, no access is allowed.
ListenerPort	Integer	Yes	80	The frontend port used by the SLB instance. Value range: 1 to 65535
LoadBalancerId	String	Yes	lb-8vb86hxix08lvsja86jaz	The ID of the SLB instance.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request.

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = SetListenerAccessControlStatus
& AccessControlStatus = open_white_list
& ListenerPort = 80
& LoadBalancerId = lb - 8vb86hxix08lvsja86jaz
&< CommonParameters >
```

Response examples

XML format

```
< SetListene rAccessCon trolStatus Response >
  < RequestId > CEF72CEB - 54B6 - 4AE8 - B225 - F876FF7BA9 84 </
    RequestId >
</ SetListene rAccessCon trolStatus Response >
```

JSON format

```
{
  " RequestId ":" CEF72CEB - 54B6 - 4AE8 - B225 - F876FF7BA9 84 "
```

Error codes

[See common error codes.](#)