

Alibaba Cloud

Server Load Balancer Developer Guide

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Document conventions

Style	Description	Example
 Danger	A danger notice 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.
 Warning	A warning notice 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 restart an instance.
 Notice	A caution notice indicates warning information, supplementary instructions, and other content that the user must understand.	 Notice: If the weight is set to 0, the server no longer receives new requests.
 Note	A note indicates supplemental instructions, best practices, tips, and other content.	 Note: You can use Ctrl + A to select all files.
>	Closing angle brackets are used to indicate a multi-level menu cascade.	Click Settings > Network > Set network type .
Bold	Bold formatting is used for buttons, menus, page names, and other UI elements.	Click OK .
<code>Courier font</code>	Courier font is used for commands	Run the <code>cd /d C:/window</code> command to enter the Windows system folder.
<i>Italic</i>	Italic formatting is used for parameters and variables.	<code>bae log list --instanceid</code> <i>Instance_ID</i>
[] or [a b]	This format is used for an optional value, where only one item can be selected.	<code>ipconfig [-all -t]</code>
{ } or {a b}	This format is used for a required value, where only one item can be selected.	<code>switch {active stand}</code>

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1.API overview

This topic lists available Server Load Balancer (SLB) API operations.

SLB instances

Operation	Description
CreateLoadBalancer	Creates an SLB instance.
ModifyLoadBalancerInternetSpec	Modifies the billing method of a public-facing SLB instance.
DeleteLoadBalancer	Deletes a pay-as-you-go SLB instance.
SetLoadBalancerStatus	Sets the status of an SLB instance.
SetLoadBalancerName	Modifies the name of an SLB instance.
DescribeLoadBalancers	Queries created SLB instances.
DescribeLoadBalancerAttribute	Queries the details of an SLB instance.
DescribeRegions	Queries available regions.
DescribeZones	Queries the zones in a region.
ModifyLoadBalancerInstanceSpec	Modifies the specification of an SLB instance.

UDP listeners

Operation	Description
CreateLoadBalancerUDPLListener	Creates a UDP listener.
SetLoadBalancerUDPLListenerAttribute	Modifies the configurations of a UDP listener.
DescribeLoadBalancerUDPLListenerAttribute	Queries the configurations of a UDP listener.

TCP listeners

Operation	Description
CreateLoadBalancerTCPLListener	Creates a TCP listener.
SetLoadBalancerTCPLListenerAttribute	Modifies the configurations of a TCP listener.
DescribeLoadBalancerTCPLListenerAttribute	Queries the configurations of a TCP listener.

HTTP listeners

Operation	Description
SetLoadBalancerHTTPListenerAttribute	Modifies the configurations of an HTTP listener.
CreateLoadBalancerHTTPListener	Creates an HTTP listener.
DescribeLoadBalancerHTTPListenerAttribute	Queries the configurations of an HTTP listener.

HTTPS listeners

Operation	Description
SetLoadBalancerHTTPSListenerAttribute	Modifies the configurations of an HTTPS listener.
DescribeLoadBalancerHTTPSListenerAttribute	Queries the configurations of an HTTPS listener.
CreateLoadBalancerHTTPSListener	Creates an HTTPS listener.

Listeners

Operation	Description
StartLoadBalancerListener	Starts a listener.
StopLoadBalancerListener	Stops a listener.
DeleteLoadBalancerListener	Deletes a listener.

Backend servers

Operation	Description
SetBackendServers	Sets the weights for backend servers.
AddBackendServers	Adds backend servers.
RemoveBackendServers	Removes backend servers.
DescribeHealthStatus	Queries the health status of a backend server.

VServer groups

Operation	Description
DescribeVServerGroupAttribute	Queries the details of a VServer group.
CreateVServerGroup	Creates a VServer group.
AddVServerGroupBackendServers	Adds backend servers to a VServer group.

Operation	Description
SetVServerGroupAttribute	Modifies the configurations of a VServer group.
RemoveVServerGroupBackendServers	Removes backend servers from a VServer group.
ModifyVServerGroupBackendServers	Replaces backend servers in a VServer group.
DeleteVServerGroup	Deletes a VServer group.
DescribeVServerGroups	Queries the list of VServer groups.

Active/standby server groups

Operation	Description
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.
DeleteMasterSlaveServerGroup	Deletes an active/standby server group.
DescribeMasterSlaveServerGroupAttribute	Queries the details of an active/standby server group.
DescribeMasterSlaveServerGroups	Queries created active/standby server groups.

Server certificates

Operation	Description
UploadServerCertificate	Uploads a server certificate.
DeleteServerCertificate	Deletes a server certificate.
DescribeServerCertificates	Queries the server certificates that are created in a region.
SetServerCertificateName	Sets the name of a server certificate.
UploadCACertificate	Uploads a CA certificate.
DeleteCACertificate	Deletes a CA certificate.
DescribeCACertificates	Queries the list of CA certificates.
SetCACertificateName	Sets the name of a CA Certificate.

Domain name extensions (Beta)

Operation	Description
CreateDomainExtension	Creates a domain name extension.

Operation	Description
SetDomainExtensionAttribute	Modifies the certificate of a domain name extension.
DescribeDomainExtensions	Queries added domain name extensions.
DeleteDomainExtension	Deletes a domain name extension.

Resources

Operation	Description
DescribeAvailableResource	Queries the resources available for purchase in a region.

Tags

Operation	Description
RemoveTags	Remove tags that are associated with an SLB instance.
AddTags	Adds tags to an SLB instance.
DescribeTags	Queries details of specified tags.

Forwarding rules

Operation	Description
CreateRules	Adds forwarding rules for an HTTP or HTTPS listener.
DeleteRules	Deletes forwarding rules.
SetRule	Changes the destination VServer group that is specified in a forwarding rule.
DescribeRuleAttribute	Queries the settings of a forwarding rule.
DescribeRules	Queries the forwarding rules that have been configured for a listener.

Access control

Operation	Description
CreateAccessControlList	Creates an access control list.
DeleteAccessControlList	Deletes an access control list.
DescribeAccessControlLists	Queries created access control lists.
DescribeAccessControlListAttribute	Queries the settings of an access control list.
SetAccessControlListAttribute	Modifies the name of an access control list.

Operation	Description
AddAccessControlListEntry	Adds IP entries to an access control list.
RemoveAccessControlListEntry	Deletes IP entries from an access control list.

Access control (earlier version)

Operation	Description
RemoveListenerWhiteListItem	Deletes IP addresses from the whitelist of a listener.
AddListenerWhiteListItem	Adds IP addresses to the whitelist of a listener.
DescribeListenerAccessControlAttribute	Queries the whitelist settings of a listener.
SetListenerAccessControlStatus	Enables or disables the access control whitelist function for a listener.

2. Service-linked roles for CLB

This topic describes the scenarios of service-linked roles for CLB and how to delete service-linked roles.

AliyunServiceRoleForSlbLogDelivery

Item	Description
Service name	logdelivery.slb.aliyuncs.com
Role policy	AliyunServiceRolePolicyForSlbLogDelivery
Permission description	Allow Classic Load Balancer (CLB) to access your Log Service instances and Object Storage Service (OSS) buckets.
Scenario	After you enable the log delivery feature, CLB delivers logs to your Log Service instances or OSS buckets.
How to enable this service-linked role	- You can enable this service-linked role by enabling one of the following features: health check logs, access logs, or fine-grained monitoring. - You can enable this service-linked role by calling the <code>SetLogsDownloadAttribute</code> or <code>SetAccessLogsDownloadAttribute</code> operation.
Action	<pre>{ "Version": "1", "Statement": [{ "Action": ["log:PostLogStoreLogs", "oss:PutObject"], "Resource": "*", "Effect": "Allow" }, { "Action": "ram:DeleteServiceLinkedRole", "Resource": "*", "Effect": "Allow", "Condition": { "StringEquals": { "ram:ServiceName": "logdelivery.slb.aliyuncs.com" } } }] }</pre>
Role deletion from service provider interface (SPI)	If no CLB instance is deployed in the current region, this role can be deleted.

AliyunServiceRoleForSlbHealthDiagnose

Item	Description
Service name	healthdiagnose.slb.aliyuncs.com
Role policy	AliyunServiceRolePolicyForSlbHealthDiagnose
Permission description	Allow CLB to access your Elastic Compute Service (ECS) instances.
Scenario	Based on the diagnostic scripts that are generated on the listeners of CLB, CLB health checks can troubleshoot the causes of exceptions and provide solutions after ECS Cloud Assistant runs the scripts and generates health diagnostic results.
How to enable this service-linked role	- You can enable this service-linked role by using the instance health check feature in the console. - You can enable this service-linked role by calling the <code>DiagnoseHealthCheckStatus</code> or <code>DetectHealthCheckStatus</code> operation.

Item	Description
Action	<pre>{ "Version": "1", "Statement": [{ "Action": ["ecs:CreateCommand", "ecs:InvokeCommand", "ecs:StopInvocation", "ecs>DeleteCommand", "ecs:DescribeCloudAssistantStatus", "ecs:DescribeCommands", "ecs:DescribeInvocations", "ecs:DescribeInvocationResults", "ecs:ModifyCommand"], "Resource": "*", "Effect": "Allow" }, { "Action": "ram:DeleteServiceLinkedRole", "Resource": "*", "Effect": "Allow", "Condition": { "StringEquals": { "ram:ServiceName": "healthdiagnose.slb.aliyuncs.com" } } }] }</pre>
Role deletion from SPI	If no CLB instance is deployed in the current region, this role can be deleted.

3.HTTP Requests

3.1. Overview

This topic describes how to make API requests over HTTP. This topic is intended for users who initiate HTTP or HTTPS GET requests by calling API operations. If you want to make a Server Load Balancer (SLB) API request, you must send an HTTP GET request to the SLB endpoint. Then, add the request parameters that correspond to the API operation being called. After you call the API, the system returns a response. The request and response are both encoded in UTF-8.

 **Note** If you are using the following tools to call the API, skip this topic:

- [SDK](#)
- Alibaba Cloud [CLI](#)
- [OpenAPI Developer Portal](#)

The request URL consists of different parameters and the request syntax is predefined. The URL contains common request parameters, the specified signature method, and operation-specific parameters. A sample request URL is provided for each API operation in the corresponding topic. To improve readability, the URL is not encoded. You must encode the URL before a request is made. After the request is verified, the results are returned. Response parameters are displayed if the call succeeds, and an error message appears if the call fails. You can troubleshoot issues based on the common error codes and API operation-specific error codes.

 **Note** We recommend that you use an SDK to call operations and manage resources. This avoids manual authentication.

3.2. Request syntax

Alibaba Cloud Server Load Balancer (SLB) allows you to call API operations by initiating HTTP or HTTPS GET requests to specific URLs. Each URL must include request parameters. This topic describes the syntax of HTTP or HTTPS GET requests and provides the endpoint of the SLB API.

Request syntax

SLB API operations use the Remote Procedure Call (RPC) protocol. Requests are created based on the following syntax:

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

The following example demonstrates how to call the DescribeLoadBalancers operation to create a SLB instance:

 **Note** The following code has been formatted to ease reading.

```
https://slb.aliyuncs.com/?Action=DescribeLoadBalancers
&Format=xml
&Version=2014-05-15
&Signature=xxxx%xxxx%3D
&SignatureMethod=HMAC-SHA1
&SignatureNonce=15215528852396
&SignatureVersion=1.0
&AccessKeyId=key-test
&TimeStamp=2012-06-01T12:00:00Z
...
```

In this example:

- **Endpoint:** the endpoint of the SLB API is `slb.aliyuncs.com`. You can call the [DescribeRegions](#) operation to obtain the endpoint corresponds to a specified region.
- **Action:** the name of the operation you want to perform. For example, to query created SLB instances, you must set the Action parameter to `DescribeLoadBalancers`.
- **RegionId:** the region where the SLB instance is deployed.
- **Version:** the version of the API that you want to use. The current SLB API version is `2014-05-15`.
- **Parameters:** the request parameters for the operation. Separate multiple parameters with ampersands (&).

Request parameters include common parameters and operation-specific parameters. Common parameters include the API version and authentication information. For more information, see [Common parameters](#).

3.3. Common parameters

This topic describes common parameters, including common request parameters and common response parameters. Common parameters are required by all API operations.

Common request parameters

Common request parameters must be included in all Server Load Balancer (SLB) API requests.

Common request parameters

Parameter	Type	Required	Description
Format	String	No	The format in which to return the response. Valid values: <i>JSON</i> and <i>XML</i> . Default value: <i>JSON</i> .
Version	String	Yes	The version number of the API. Specify the version number in the YYYY-MM-DD format. Set the value to <i>2014-05-15</i> .
AccessKeyId	String	Yes	The AccessKey ID provided to you by Alibaba Cloud.
Signature	String	Yes	The signature string of the request.

Parameter	Type	Required	Description
SignatureMethod	String	Yes	The encryption method of the signature string. Set the value to <i>HMAC-SHA1</i> .
Timestamp	String	Yes	The timestamp of the request. Specify the time in the ISO 8601 standard in the YYYY-MM-ddTHH:mm:ssZ format. The time must be in UTC. Example: 2013-01-10T12:00:00Z, which specifies 20:00:00 on January 10, 2013 (UTC+8).
SignatureVersion	String	Yes	The version of the signature encryption algorithm. Set the value to <i>1.0</i> .
SignatureNonce	String	Yes	A unique and random number that is used to prevent replay attacks. You must use different numbers for different requests.
ResourceOwnerAccount	String	No	The account that owns the resource to be accessed by the API request.

Examples

```
http://slb.aliyuncs.com/?Action=DescribeLoadBalancers
&TimeStamp=2014-05-19T10%3A33%3A56Z
&Format=xml
&AccessKeyId=testid
&SignatureMethod=Hmac-SHA1
&SignatureNonce=NwDaxvLU6tF*****
&Version=2014-05-15
&SignatureVersion=1.0
&Signature=Signature
```

Common response parameters

API responses use the HTTP response format where a 2xx status code indicates a successful call and a 4xx or 5xx status code indicates a failed call. Responses can be returned in either the JSON or XML format. You can specify the response format in the request. The default response format is JSON.

Every response returns a unique RequestID regardless of whether the call is successful.

- XML format

```
<? xml version="1.0" encoding="utf-8"? >
  <!--Result Root Node-->
  <Interface Name+Response>
    <!--Return Request Tag-->
    <RequestId>4C467B38-3910-447D-87BC-AC049166F216</RequestId>
    <!--Return Result Data-->
  </Interface Name+Response>
```

- JSON format

```
{
  "RequestId": "4C467B38-3910-447D-87BC-AC049166F216",
  /*Return Result Data*/
}
```

3.4. Request signatures

You must sign all HTTP or HTTPS API requests to ensure security. Alibaba Cloud Server Load Balancer (SLB) uses the request signature to verify the identity of the request sender. SLB implements symmetric encryption with an AccessKey pair to verify the identity of the request sender. An AccessKey pair consists of an AccessKey ID and an AccessKey secret.

You must add the signature to the RPC API request in the following format:

```
https://Endpoint/?SignatureVersion=1.0&SignatureMethod=HMAC-SHA1&Signature=CT9X0VtwR86fNWSnsc6v8YGOjuE%3D&SignatureNonce=3ee8c1b8-83d3-44af-a94f-4e0ad82fd6cf
```

where:

- **SignatureMethod**: the encryption method of the signature string. Set the value to HMAC-SHA1.
- **SignatureVersion**: the version of the signature encryption algorithm. Set the value to 1.0.
- **SignatureNonce**: a unique, random number used to prevent replay attacks. You must use different random numbers for different requests. We recommend that you use universally unique identifiers (UUIDs).
- **Signature**: the signature string generated by symmetrically encrypting the request by using the AccessKey secret.

AccessKey descriptions

An AccessKey pair is an identity credential that is issued to Alibaba Cloud accounts and RAM users. Each AccessKey pair is used in a similar way as the username and password. AccessKey pairs are used to call API operations. Usernames and passwords are used to log on to the Elastic Compute Service (ECS) console. The AccessKey ID is used to verify the identity of the user, while the AccessKey secret is used to encrypt and verify the signature string. You must keep your AccessKey secret confidential. For more information, see [Obtain an AccessKey pair](#).

 **Note** SLB provides SDKs for multiple programming languages, including third-party SDKs. This simplifies signature signing. For more information, download [SDKs](#).

Step 1: Create a canonicalized query string

```
GET%2F&AccessKeyId%3Dtestid%26Action%3DDescribeRegions%26Format%3DXML%26SignatureMethod%3DHMAC-SHA1%26SignatureNonce%3D3ee8c1b8-83d3-44af-a94f-4e0ad82fd6cf%26SignatureVersion%3D1.0%26TimeStamp%3D2016-02-23T12%253A46%253A24Z%26Version%3D2014-05-26
```

1. Create a canonicalized query string by arranging the request parameters in alphabetical order. The request parameters include all common parameters and operation-specific parameters except Signature.

Note If you use the GET method to send a request, the request parameters are included as a part of the request URL. The first parameter follows the question mark (`?`) in the URL, and the other parameters follow an ampersand (`&`).

2. Encode the canonicalized query string in UTF-8. Encode the request parameters and parameter values by using the UTF-8 character set and following the [RFC 3986](#) specification. The following encoding rules are used:
 - Do not encode uppercase letters, lowercase letters, digits, and the following special characters: hyphens (-), underscores (_), periods (.), and tildes (~).
 - Other characters must be percent-encoded in the `%XY` format. `XY` represents the ASCII code of the character in hexadecimal notation. For example, double quotation marks (`"`) are encoded as `%22`.
 - Extended UTF-8 characters are encoded in the `%XY%ZA...` format.
 - Space characters must be encoded as `%20`. Do not encode space characters as plus signs (`+`).

The preceding encoding method is slightly different from the `application/x-www-form-urlencoded` MIME-type encoding algorithm.

If you use `java.net.URLEncoder` in the Java standard library, use `percentEncode` to encode request parameters and their values. In the encoded query string, replace the plus sign (`+`) with `%20`, the asterisk (`*`) with `%2A`, and `%7E` with a tilde (`~`). This way, you can obtain an encoded string that matches the preceding encoding rules.

```
private static final String ENCODING = "UTF-8";
private static String percentEncode(String value) throws UnsupportedOperationException {
    return value != null ? URLEncoder.encode(value, ENCODING).replace("+", "%20").replace("**", "%2A").replace("%7E", "~") : null;
}
```

3. Concatenate the encoded parameter names and values with equal signs (`=`).
4. Sort the parameter name and value pairs in the order specified in Step 1. Then concatenate the pairs with ampersands (&) to create the canonicalized query string.

Step 2: Create a string-to-sign

1. Calculate the hash-based message authentication code (HMAC) value, as defined in [RFC 2104](#). Use the Secure Hash Algorithm 1 (SHA-1) algorithm to calculate the HMAC value.

Add an ampersand (&) after the AccessKey secret as the key to calculate the HMAC value. In this example, the key is `testsecret&`.

```
CT9X0VtwR86fNWSnsc6v8YGOjuE=
```

Note When you calculate the signature, the key value specified by RFC 2104 is your `AccessKeySecret` with an ampersand (`&`) which has an ASCII value of 38.

2. Encode the `Signature` parameter based on [RFC 3986](#) and add it to the canonicalized query string.

```
http://slb.aliyuncs.com/?Action=DescribeLoadBalancers
&TimeStamp=2016-02-23T12:46:24Z
&Format=XML
&AccessKeyId=testid
&SignatureMethod=HMAC-SHA1
&SignatureNonce=3ee8c1b8-83d3-44af-a94f-4e0ad82fd6cf
&Version=2014-05-26
&SignatureVersion=1.0
&Signature=CT9X0VtwR86fNWSnsc6v8YGOjuE%3D
```

3.5. Result

Responses are returned in the JSON or XML format. The default response format is XML. To change the format, you can set the `Format` parameter in requests. For more information, see [Common parameters](#). Sample responses provided in API reference are formatted with line feeds and indentations for better readability and clarity. However, the actual responses are not formatted with line feeds or indentations.

Sample success responses

Each response returns response parameters such as the request ID when the call is successful. The HTTP status code is 2xx.

- XML format

```
<?xml version="1.0" encoding="UTF-8"?> <!--Result root node-->
<ActionResponse> <!--Response request tag-->
    <RequestId>4C467B38-3910-447D-87BC-AC049166F216</RequestId> <!--Response data-->
</ActionResponse>
```

- JSON format

```
{
  "RequestId": "4C467B38-3910-447D-87BC-AC049166F216" /* Response data */
}
```

Sample error response

If an error occurs when you call an operation, an error response that consists of the error code, error message, and request ID is returned. The HTTP status code is 4xx or 5xx.

For a list of error codes, see [Common errors](#) and visit the [API Error Center](#). If the error persists, you can [submit a ticket](#) and provide `HostId` and `RequestId` to request technical support from Alibaba Cloud.

- XML format

```
<?xml version="1.0" encoding="UTF-8"?><!--Result root node-->
<Error>
    <RequestId>540CFF28-407A-40B5-B6A5-74Bxxxxxxxx</RequestId> <!--Request ID-->
    <HostId>ecs.aliyuncs.com</HostId> <!--Service endpoint-->
    <Code>MissingParameter.CommandId</Code> <!--Error code-->
    <Message>The input parameter "CommandId" that is mandatory for processing this request i
s not supplied.</Message> <!--Error message-->
</Error>
```

- JSON format

```
{
  "RequestId": "540CFF28-407A-40B5-B6A5-74Bxxxxxxxx", /* Request ID */
  "HostId": "ecs.aliyuncs.com", /* Service endpoint */
  "Code": "Code": "MissingParameter.CommandId", /* Error code */
  "Message": "The input parameter \"CommandId\" that is mandatory for processing this request is not supplied." /* Error message */
}
```

Common errors

Error codes	HTTP status code	Error message
IdempotentParameterMismatch	400	The request is retried with updated parameters.
IllegalTimestamp	400	The input parameter "Timestamp" that is mandatory for processing this request is not supplied.
IncompleteSignature	400	The request signature does not conform to Aliyun standards.
InsufficientBalance	400	Your account does not have enough balance.
InvalidAccessKeyId.NotFound	400	The specified Access Key ID does not exist.
InvalidOwner	400	OwnerId and OwnerAccount can't be used at one API access.
InvalidOwnerAccount	400	The specified OwnerAccount is not valid.
InvalidOwnerId	400	The specified OwnerId is not valid.
InvalidParamater	400	The specified parameter "SignatureMethod" is not valid.
InvalidParamater	400	The specified parameter "SignatureVersion" is not valid.
InvalidParameter	400	The specified parameter is not valid
InvalidParameter	400	The specified parameter "Action or Version" is not valid.
InvalidParameter.Is Null	400	The required parameter must be not null.
MissingParameter	400	The input parameter "Action" that is mandatory for processing this request is not supplied
MissingParameter	400	The input parameter "AccessKeyId" that is mandatory for processing this request is not supplied
MissingParameter	400	The input parameter "Signature" that is mandatory for processing the request is not supplied.
MissingParameter	400	The input parameter "TimeStamp" that is mandatory for processing this request is not supplied

Error codes	HTTP status code	Error message
MissingParameter	400	The input parameter "Version" that is mandatory for processing this request is not supplied
SignatureNonceUsed	400	The request signature nonce has been used.
Throttling	400	You have made too many requests within a short time; your request is denied due to request throttling.
UnsupportedParameter	400	The parameters is unsupported.
UnknownError	400	The request processing has failed due to some unknown error.
ChargeTypeViolation	403	The operation is not permitted due to charge type of the instance.
Forbidden.AccessKeyDisabled	403	The Access Key is disabled.
Forbidden.NotSupportRAM	403	This action does not support accessed by RAM mode.
Forbidden.RAM	403	User not authorized to operate on the specified resource, or this API doesn't support RAM.
Forbidden.RiskControl	403	This operation is forbidden by Aliyun RiskControl system.
Forbidden.SubUser	403	The specified action is not available for you.
Forbidden.Unauthorized	403	User not authorized to operate on the specified resource.
InvalidAccount.NotFound	403	The specified Account does not exist.
InvalidAction	403	Specified action is not valid.
InvalidIdempotenceParameter.Mismatch	403	The specified parameters are different from before.
InvalidParameter.OwnerAccount	403	OwnerAccount is Invalid.
InvalidParameter.ResourceOwnerAccount	403	ResourceOwnerAccount is Invalid.
LastTokenProcessing	403	The last token request is processing.

Error codes	HTTP status code	Error message
MissingParameter	403	The input parameter OwnerId,OwnerAccount that is mandatory for processing this request is not supplied.
RealNameAuthenticationError	403	Your account has not passed the real-name authentication yet.
UnsupportedHTTPMethod	403	This http method is not supported.
InvalidDiskId.NotFound	404	The specified DiskId does not exist.
InvalidImageId.NotFound	404	The specified ImageId does not exist.
InvalidInstanceId.NotFound	404	The specified InstanceId does not exist.
InvalidRegionId.NotFound	404	The specified RegionId does not exist.
InvalidSecurityGroupId.NotFound	404	The specified SecurityGroupId does not exist.
InvalidSnapshotId.NotFound	404	The specified SnapshotId does not exist.
OperationConflict	409	Request was denied due to conflict with a previous request.
InternalServerError	500	The request processing has failed due to some unknown error, exception or failure.
ServiceUnavailable	503	The request has failed due to a temporary failure of the server.
ServiceUnavailable.RegionMaintaining	503	System maintenance is in progress on the selected region, please wait a few minutes before trying again.

4. Obtain an AccessKey pair

This topic describes how to create an AccessKey pair for your Alibaba Cloud account or Resource Access Management (RAM) user. When you call Alibaba Cloud Server Load Balancer (SLB) API operations, SLB uses your AccessKey pair to verify your identity.

Context

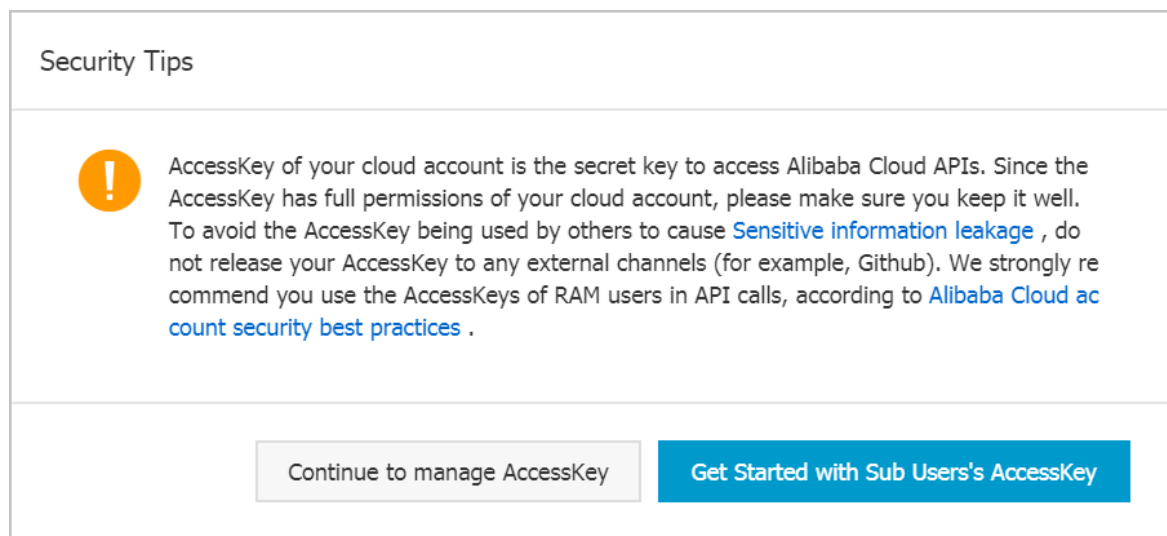
An AccessKey pair consists of an AccessKey ID and an AccessKey secret.

- The AccessKey ID is used to verify the identity of the user.
- The AccessKey secret is used to encrypt and verify the signature string. You must keep your AccessKey secret confidential.

 **Warning** If the AccessKey pair of your Alibaba Cloud account is disclosed, your resources may be exposed to potential risks. We recommend that you use the AccessKey pair of a RAM user to call API operations. This minimizes the risks of disclosing the AccessKey pair of your Alibaba Cloud account.

Procedure

1. Log on to the [Alibaba Cloud Management Console](#) with your Alibaba Cloud account.
2. Move the pointer over your account avatar in the upper-right corner and click **AccessKey Management**.
3. In the **Note** dialog box, click **Use Current AccessKey Pair** or **Use AccessKey Pair of RAM User**.



4. Obtain the AccessKey pair of an account.
 - Obtain the AccessKey pair of your Alibaba Cloud account.
 - a. Click **Use Current AccessKey Pair**.
 - b. On the **AccessKey Management** page, click **Create AccessKey**.
 - c. In the **Phone Verification** dialog box, obtain the verification code, complete the verification process, and then click **OK**.

- d. In the **Create User AccessKey** dialog box, view the AccessKey ID and AccessKey secret. You can click **Download CSV File** to download the AccessKey pair.

- o Obtain the AccessKey pair of a RAM user.
- Click **Use AccessKey Pair of RAM User**.
 - Go to the **RAM console**. On the **Create User** page, create a RAM user. If you want to obtain the AccessKey pair of an existing RAM user, skip this step.
 - In the left-side navigation pane of the **RAM console**, choose **Identities > Users**.
 - Find the RAM user and click the username. In the **User AccessKeys** section of the **Authentication** tab, click **Create AccessKey**.
 - On the **Phone Verification** page, obtain the verification code, complete the verification process, and then click **OK**.
 - In the **Create AccessKey** dialog box, view the AccessKey ID and AccessKey secret. To save the information of the AccessKey pair, you can click **Download CSV File** or **Copy** to copy the information of the AccessKey.

5. Authorize a RAM user

Before you call a Service Load Balancer (SLB) API operation as a Resource Access Management (RAM) user, you must use your Alibaba Cloud account to create a permission policy and attach the permission policy to the RAM user. In the permission policy, Alibaba Cloud Resource Names (ARNs) are used to specify resources.

Available SLB resource types

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

Resource type	ARN format
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` specifies the ID of a resource. `*` indicates all corresponding resources.

Available SLB API operations

The following table lists the SLB API operations that can be authorized and their corresponding ARNs.

API	Description
CreateLoadBalancer	acs:slb:\$regionid:\$accountid:loadbalancer/*
ModifyLoadBalancerInternetSpec	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
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/*
DescribeLoadBalancerAttribute	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
DescribeRegions	acs:slb:*\$accountid:*
UploadServerCertificate	acs:slb:%s:%s:certificate/*

API	Description
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
SetLoadBalancerHTTPListenerAttribute	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
SetLoadBalancerHTTPSListenerAttribute	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
	acs:slb:%s:%s:certificate/%
SetLoadBalancerTCPListenerAttribute	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
SetLoadBalancerUDPListenerAttribute	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
DescribeLoadBalancerHTTPListenerAttribute	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
DescribeLoadBalancerHTTPSListenerAttribute	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
DescribeLoadBalancerTCPListenerAttribute	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
DescribeLoadBalancerUDPListenerAttribute	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

API	Description
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
DescribeVServerGroups	acs:slb:\$regionid:\$accountid:loadbalancer/\$loadbalancerid
DescribeVServerGroupAttribute	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
DescribeAccessControlListAttribute	acs:slb:\$regionid:\$accountid:acl/\$aclid
SetAccessControlListAttribute	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 a Classic Load Balancer (CLB) instance.

Description

- Before you create a CLB instance, call the [DescribeAvailableResource](#) operation to query the resources available for purchase in the region where you want to create the CLB instance.
- After a CLB instance is created, you are charged for using the CLB instance.
- If you do not set **LoadBalancerSpec**, a shared-resource CLB instance is created. We recommend that you set **LoadBalancerSpec** to specify the specification of the CLB instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateLoadBalancer	The operation that you want to perform. Set the value to CreateLoadBalancer .
RegionId	String	Yes	cn-hangzhou	The ID of the region where you want to create the CLB instance. You can call the DescribeRegions operation to query the most recent region list.
AddressType	String	No	internet	The network type of the CLB instance. Valid values: • internet: After an Internet-facing CLB instance is created, the system allocates a public IP address to the CLB instance. Then, the CLB instance can forward requests from the Internet. • intranet: After an internal-facing CLB instance is created, the system allocates a private IP address to the CLB instance. Then, the CLB instance can forward only internal requests.

Parameter	Type	Required	Example	Description
InternetChargeType	String	No	paybytraffic	The metering method of the Internet-facing CLB instance. Valid values: paybytraffic (default): pay-by-data-transfer  Note If you set the value to paybytraffic, you do not need to set Bandwidth. Even if you set Bandwidth, the value does not take effect. paybybandwidth: pay-by-bandwidth
Bandwidth	Integer	No	10	The maximum bandwidth value of the listener. Unit: Mbit/s. Valid values: 1 to 5120: For a pay-by-bandwidth Internet-facing CLB instance, you can specify a maximum bandwidth value for each listener. The sum of maximum bandwidth values of all listeners cannot exceed the maximum bandwidth value of the CLB instance.
ClientToken	String	No	593B0448-D13E-4C56-AC0D-FDF0FDE0E9A3	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must make sure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.  Note If you do not set this parameter, the system automatically uses RequestId as ClientToken. The ID of each request may be different.
LoadBalancerName	String	No	lb-bp1o94dp5i6ea***	The name of the CLB instance. The name must be 1 to 80 characters in length, and can contain digits, periods (.), underscores (_), and hyphens (-). It must start with a letter. If this parameter is not set, the system automatically creates a name for the CLB instance.

Parameter	Type	Required	Example	Description
VpcId	String	No	vpc-bp1aevy8sofi8mh1****	The ID of the virtual private cloud (VPC) to which the CLB instance belongs.
VSwitchId	String	No	vsw-bp12mw1f8k3jgy****	The ID of the vSwitch to which the CLB instance belongs. If you want to deploy the CLB instance in a VPC, you must set this parameter. If this parameter is set, AddressType is set to intranet by default.
MasterZoneId	String	No	cn-hangzhou-b	The ID of the primary zone to which the CLB instance belongs. You can call the DescribeZone operation to query the primary and secondary zones in the region where you want to create the CLB instance.
SlaveZoneId	String	No	cn-hangzhou-d	The ID of the secondary zone to which the CLB instance belongs. You can call the DescribeZone operation to query the primary and secondary zones in the region where you want to create the CLB instance.
LoadBalancerSpec	String	No	slb.s1.small	The specification of the CLB instance. Valid values: - slb.s1.small - slb.s2.small - slb.s2.medium - slb.s3.small - slb.s3.medium - slb.s3.large  Note If you do not set this parameter, a shared-resource CLB instance is created. Shared-resource CLB instances are no longer available for purchase. Therefore, you must set this parameter.
ResourceGroupId	String	No	rg-atstuj3rtopt****	The ID of the resource group.

Parameter	Type	Required	Example	Description
PayType	String	No	PayOnDemand	The billing method of the CLB instance. Set the value to • PayOnDemand: pay-as-you-go
PricingCycle	String	No	month	The billing cycle of the subscription CLB instance. Valid values: • month • year  Note This parameter is valid only when you create a subscription CLB instance on the Alibaba Cloud China site. In this case, the PayType parameter must be set to PrePay.
Duration	Integer	No	1	The subscription duration of the Internet-facing CLB instance. Valid values: • If PricingCycle is set to month, valid values are 1 to 9. • If PricingCycle is set to year, valid values are 1 to 3.  Note This parameter is valid only when you create a subscription CLB instance on the Alibaba Cloud China site. In this case, the PayType parameter must be set to PrePay.

Parameter	Type	Required	Example	Description
AutoPay	Boolean	No	true	Specifies whether to automatically pay for the subscription Internet-facing CLB instance. Valid values: true: automatically pays for the subscription Internet-facing CLB instance. After you call the operation, the system automatically completes the payment and creates the CLB instance. false (default): After you call the operation, the order is created but not paid. You can view the order in the console. The CLB instance will not be created until you complete the payment.  Note This parameter is valid only when you create a subscription CLB instance on the Alibaba Cloud China site. In this case, the PayType parameter must be set to PrePay.
AddressIPVersion	String	No	ipv4	The IP version used by the CLB instance. Valid values: ipv4 and ipv6 .
Address	String	No	192.168.XX.XX	The private IP address of the CLB instance. The private IP address must belong to the destination CIDR block of the vSwitch.
DeleteProtection	String	No	on	Specifies whether to enable deletion protection for the CLB instance. Valid values: on: yes off: no
ModificationProtectionStatus	String	No	ConsoleProtection	Specifies whether to enable the configuration read-only mode for the CLB instance. Valid values: NonProtection: disables the configuration read-only mode. After you disable the configuration read-only mode, the value of <code>ModificationProtectionReason</code> is cleared. ConsoleProtection: enables the configuration read-only mode.

Parameter	Type	Required	Example	Description
ModificationProtectionReason	String	No	Managed instance	The reason why you want to enable the configuration read-only mode. The value must be 1 to 80 characters in length. It must start with a letter and can contain digits, periods (.), underscores (_), and hyphens (-).  Note This parameter is valid only when <code>ModificationProtectionStatus</code> is set to ConsoleProtection.

Response parameters

Parameter	Type	Example	Description
LoadBalancerId	String	lb-hddhfjg****	The ID of the CLB instance.
Address	String	42.XX.XX.6	The IP address that is allocated to the CLB instance.
VpcId	String	vpc-25dvzy9****	The ID of the VPC to which the CLB instance belongs.
VSwitchId	String	vsw-255ecr****	The ID of the vSwitch to which the CLB instance belongs.
LoadBalancerName	String	lb-bp1o94dp5i6ea****	The name of the CLB instance.
AddressIPVersion	String	ipv4	The IP version that is used by the CLB instance.
NetworkType	String	classic	The type of network where the CLB instance is deployed. Valid values: vpc and classic. vpc: a VPC classic: a classic network
OrderId	Long	202129619788910	The order ID of the subscription CLB instance.
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.

Parameter	Type	Example	Description
ResourceGroupId	String	rg-atstuj3rto****	The ID of the resource group.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateLoadBalancer
&RegionId=cn-hangzhou
&<Common request parameters>
```

Sample success responses

XML format

```
<CreateLoadBalancerResponse>
<LoadBalancerName>lb-bp1o94dp5i6ea****</LoadBalancerName>
<VpcId>vpc-25dvzy9****</VpcId>
<Address>42.XX.XX.6</Address>
<ResourceGroupId>rg-atstuj3rto****</ResourceGroupId>
<RequestId>365F4154-92F6-4AE4-92F8-7FF34B540710</RequestId>
<NetworkType>classic</NetworkType>
<AddressIPVersion>ipv4</AddressIPVersion>
<VSwitchId>vsw-255ecr****</VSwitchId>
<LoadBalancerId>lb-hddhfjg****</LoadBalancerId>
<OrderId>202129619788910</OrderId>
</reateLoadBalancerResponse>
```

JSON format

```
{
  "LoadBalancerName": "lb-bp1o94dp5i6ea****",
  "VpcId": "vpc-25dvzy9****",
  "Address": "42.XX.XX.6",
  "ResourceGroupId": "rg-atstuj3rto****",
  "RequestId": "365F4154-92F6-4AE4-92F8-7FF34B540710",
  "NetworkType": "classic",
  "AddressIPVersion": "ipv4",
  "VSwitchId": "vsw-255ecr****",
  "LoadBalancerId": "lb-hddhfjg****",
  "OrderId": 202129619788910
}
```

Error codes

HttpCode	Error code	Error message	Description
400	OperationFailed.ZoneResourceLimit	The operation failed because of resource limit of the specified zone.	The error message returned because the resources in the current zone are insufficient and the operation failed.

HttpCode	Error code	Error message	Description
400	OperationFailed.RegionResourceLimit	The operation failed because of resource limit of the specified region.	The error message returned because the resources in the specified region are insufficient and the operation failed.
400	Operation.NotAllowed	Operation Denied. The charge type of internet prepay instance can only be paybybandwidth.	The error message returned because a subscription Internet-facing CLB instance supports only the pay-by-bandwidth metering method and the operation is rejected.
400	Operation.NotAllowed	Operation Denied. The charge type of intranet prepay instance can only be paybytraffic.	The error message returned because a subscription internal-facing CLB instance supports only the pay-by-data-transfer metering method and the operation is rejected.
400	OperationFailed.UnpaidBillsExist	The account has unpaid bills. Please pay your overdue bill first.	The error message returned because the current account has unpaid bills and the operation failed. Pay the overdue bills first.
400	RegionOrZonesNotSupportIpv6	The specified region or master/slave zones does not support ipv6.	The error message returned because the specified region, primary zone, or secondary zone does not support IPv6.
400	InvalidParameter.Mismatch	AddressType and IpVersion is conflict, IPv6 does not support intranet instance.	The error message returned because the network type conflicts with the IP version. An internal-facing CLB instance does not support IPv6.
400	HighRiskOperationDenied	The operation is denied because of high risk.	The error message returned because the operation is risky and is rejected.
400	VSwitchAvailableIpNotExist	The specified VSwitch has no available ip.	The error message returned because the specified vSwitch does not have an available IP address.
400	VSwitchNotExist	The specified VSwitch does not exist.	The error message returned because the specified vSwitch does not exist.
400	InvalidParameter	Illegal parameter. The IP address is not in subnet.	The error message returned because the specified IP address does not belong to the subnet.

HttpCode	Error code	Error message	Description
400	Instance.ShareSlbNotSupportPay95	Illegal parameter. The share instance not support PayBy95 or PayByOld95.	The error message returned because a shared-resource instance does not support PayBy95 or PayByOld95.
400	Instance.Pay95RateInvalid	Illegal parameter. The rate is illegal.	The error message returned because the specified rate is invalid. Check the usage notes and change the value accordingly.
400	Instance.Pay95BandwidthIllegal	Illegal parameter. The bandwidth is illegal.	The error message returned because the specified bandwidth is invalid. Check the usage notes and change the value accordingly.
400	Instance.InternetChargeTypeNotAllowed	Illegal parameter. The specified InternetChargeType not allowed.	The error message returned because InternetChargeType is set to an invalid value.
400	OperationFailed.TokenIsProcessing	The operation is failed, because the Client Token is processing.	The error message returned because the current request is being processed.
400	MissingParam.VSwitchId	The parameter VSwitchId is required.	The error message returned because VSwitchId is not set.
400	InvalidVpcId.NotExist	The specified VPC not exist.	The error message returned because the specified VPC does not exist.
400	InvalidParameter.CloudType	The specified CloudType is invalid.	The error message returned because CloudType is set to an invalid value. Check the usage notes and change the value accordingly.
400	OperationFailed.InvalidAccount	The account information is incomplete.	The error message returned because the account information is incomplete.
400	RegionOrZonesNotSupportCEN	The specified region or master/slave zones does not support cloudType of hybrid_cen.	The error message returned because the specified region, primary zone, or secondary zone does not support Cloud Enterprise Network (CEN).
400	MissingParam.LoadBalancerSpec	The param LoadBalancerSpec is required.	The error message returned because LoadBalancerSpec is not set.
400	InvalidParameter.Bandwidth	The param Bandwidth is invalid.	The error message returned because the specified bandwidth is invalid. Check the usage notes and change the value accordingly.

HttpCode	Error code	Error message	Description
400	OperationForbidden.AccountRiskReject	The operation failed because of account risk reject.	The error message returned because the current account is locked and the operation failed.
400	OperationForbidden.QuotaLimit	The operation failed because of quota limit of shared loadbalancers.	The error message returned because the number of shared-resource instances has reached the upper limit.
400	InvalidParam.ModificationProtectionStatus	The param ModificationProtectionStatus is invalid.	The error message returned because ModificationProtectionStatus is set to an invalid value. Check the usage notes and change the value accordingly.
400	InvalidParam.ModificationProtectionReason	The param ModificationProtectionReason is invalid.	The error message returned because ModificationProtectionReason is set to an invalid value. Check the usage notes and change the value accordingly.
400	InvalidParam.ModificationProtectionReason	%s.	The error message returned because ModificationProtectionReason is set to an invalid value. Check the usage notes and change the value accordingly.
400	ShareSlbHaltSales	The share instance has been discontinued.	The error message returned because shared-resource CLB instances are already sold out.
400	OperationFailed.CashBookInsufficient	No payment method is specified for your account, We recommend that you add a payment method or maintain a prepayment balance.	The error message returned because you did not specify a payment method. We recommend that you add a payment method or keep a sufficient account balance.
400	OperationFailed.OnlyInnerCommoditySupportToPurchase	AliCroup2Cloud user only can buy inner commodity.	The error message returned because you can purchase only internal products.
400	OperationFailed.InvokeLingXiaoFailed	Failed to invoke lingxiao service.	The error message returned because the system failed to call the Lingxiao service.
503	SDK.ServerUnreachable	Service is unreachable.	The error message returned because the service cannot be accessed. Try again later.

HttpCode	Error code	Error message	Description
400	AllocateVpcInstanceFailed	Failed to allocate vpc instance.	The error message returned because the system failed to allocate the VPC.
400	QueryCreditCtrlInfoFailed	Failed to query credit ctrl info.	The error message returned because the system failed to query user information.
400	QueryCommodityCenterFailed	Failed to query commodity center.	The error message returned because the system failed to query the product center.
400	RegionNotSupportParameter	Current region does not support the param of %s.	The error message returned because the specified parameter is not supported in the current region.
400	QueryAccountBookInfoFailed	Failed to invoke account book info.	The error message returned because the system failed to call the ledger information.
400	RateAccountFailed	Failed to rate account for pricing.	The error message returned because the system failed to call the pricing service.
400	TradeWaitDistributorAudit	The trade needs distributor to audit.	The error message returned because the transaction is pending review by the distributor.
400	OperationFailed.InvokeProxyFailed	Failed to invoke proxy.	The error message returned because the system failed to call the proxy.
400	QueryAccountCompleteProgressFailed	Failed to query account progress.	The error message returned because the system failed to query the account progress.
400	QueryVoucherInfoFailed	Failed to query voucher info.	The error message returned because an error occurred when the system queried the user credentials.
400	InvalidVSwitchId.NotFound	The specified vSwitch instance is invalid.	The error message returned because the specified vSwitch is invalid.
400	IllegalParam.SpecType	The param of SpecType is illegal.	The error message returned because SpecType is set to an invalid value. Check the usage notes and change the value accordingly.
400	MissingParam.SpecType	The param of SpecType is missing.	The error message returned because SpecType is not set.

HttpCode	Error code	Error message	Description
400	UnsupportedRegion	The feature is not supported in current region.	The error message returned because this feature is not supported in the current region.

For a list of error codes, visit the [API Error Center](#).

6.2. DeleteLoadBalancer

Deletes a pay-as-you-go Server Load Balancer (SLB) instance.

 **Note** After you delete an SLB instance, the listeners and tags added to the SLB instance are deleted.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DeleteLoadBalancer	The operation that you want to perform. Set the value to DeleteLoadBalancer .
LoadBalancerId	String	Yes	lb-bp1h66tp5uat8****	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SLB instance is created. You can call the DescribeRegions operation to query region IDs.

Response parameters

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

If the SLB instance that you want to delete has deletion protection enabled, the system reports an error in the following formats:

- JSON format

```
{
  "RequestId": "7B7AB375-1EA6-4A18-9D1C-F258F2D57638",
  "HostId": "slb.aliyuncs.com",
  "Code": "OperationDenied.DeleteProtectionIsOn",
  "Message": "The loadbalancer can't be deleted due to DeleteProtection is enabled."
}
```

- XML format

```
<?xml version="1.0" encoding="UTF-8" ?>
  <DeleteLoadBalancerResponse>
    <RequestId>7B7AB375-1EA6-4A18-9D1C-F258F2D57638</RequestId>
    <HostId>slb.aliyuncs.com</HostId>
    <Code>OperationDenied.DeleteProtectionIsOn</Code>
    <Message>The loadbalancer can't be deleted due to DeleteProtection is enabled.</Message>
  </DeleteLoadBalancerResponse>
```

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DeleteLoadBalancer
&LoadBalancerId=lb-bp1h66tp5uat8*****
&<Common request parameters>
```

Sample success responses

XML format

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

JSON format

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

Error codes

For a list of error codes, visit the [API Error Center](#).

6.3. ModifyLoadBalancerInstanceSpec

Modifies the specification of a Server Load Balancer (SLB) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyLoadBalancerInstanceSpec	The operation that you want to perform. Set the value to ModifyLoadBalancerInstanceSpec .
LoadBalancerId	String	Yes	lb-bp1b6c719df*****	The ID of the SLB instance.
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 The supported specifications vary by region. For more information about the specifications of high-performance SLB instances, see High-performance SLB instances.  Note When you change a shared-resource SLB instance to a high-performance SLB instance, service disruptions may occur. The SLB instance may stop providing services for 10 to 30 seconds. Therefore, we recommend that you modify the configuration during off-peak hours. In addition, you can use Global Server Load Balancing (GSLB) to switch your workloads to another SLB instance before you modify the configuration.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SLB instance is deployed. You can query region IDs from the Regions and zones list or by calling the DescribeRegions operation.

Parameter	Type	Required	Example	Description
AutoPay	Boolean	No	true	Specifies whether to enable automatic payment. Valid values: true: enables automatic payment. false: disables automatic payment. You must complete the payment in Order Center.  Note You can enable automatic payment for only subscription SLB instances.

Response parameters

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

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ModifyLoadBalancerInstanceSpec
&LoadBalancerId=lb-bp1b6c719df*****
&LoadBalancerSpec=slb.s2.small
&<Common request parameters>
```

Sample success responses

XML format

```
<ModifyLoadBalancerInstanceSpecResponse>
  <RequestId>D456A34A-6E40-4379-8DAF-9175760FE215</RequestId>
</ModifyLoadBalancerInstanceSpecResponse>
```

JSON format

```
{
  "RequestId": "D456A34A-6E40-4379-8DAF-9175760FE215"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	ModifySpecNotAllowed	LoadBalancerSpec not allowed for this instance	The error message returned because the specified SLB instance does not support the specification.
400	Operation.NotAllowed	Operation Denied. Unfinished purchase exists.	The error message returned because a pending order exists.
400	ChangeLbSpecNotAllowed	You cannot change the specification for the specified load balancer.	The error message returned because you cannot modify the specification of the specified SLB instance.

For a list of error codes, visit the [API Error Center](#).

6.4. DescribeZones

Queries zones in a specified region.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeZones	The operation that you want to perform. Set the value to DescribeZones .
RegionId	String	Yes	cn-hangzhou	The ID of the region where the Classic Load Balancer (CLB) instance is deployed.

Response parameters

Parameter	Type	Example	Description
Zones	Array of Zone		The list of zones.
Zone			
ZoneId	String	cn-hangzhou-b	The ID of the zone.

Parameter	Type	Example	Description
LocalName	String	Hangzhou Zone	The name of the zone.
SlaveZones	Array of SlaveZone		The list of secondary zones.
SlaveZone			
ZoneId	String	cn-hangzhou-g	The ID of the secondary zone.
LocalName	String	Hangzhou Zone G	The name of the secondary zone.
RequestId	String	A48D35FF-440A-4BC0-A4A2-A9BF69B7E43A	The ID of the request.

Examples

Sample requests

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

Sample success responses

XML format

```
<DescribeZonesResponse>
  <RequestId>3FF183FF-F4AA-40E8-8B5D-90788C6799C2</RequestId>
  <Zones>
    <Zone>
      <SlaveZones>
        <SlaveZone>
          <ZoneId>cn-hangzhou-g</ZoneId>
          <LocalName>Hangzhou Zone G</LocalName>
        </SlaveZone>
        <SlaveZone>
          <ZoneId>cn-hangzhou-d</ZoneId>
          <LocalName>Hangzhou Zone D</LocalName>
        </SlaveZone>
      </SlaveZones>
      <ZoneId>cn-hangzhou-b</ZoneId>
      <LocalName>Hangzhou Zone B</LocalName>
    </Zone>
    <Zone>
      <SlaveZones>
        <SlaveZone>
          <ZoneId>cn-hangzhou-e</ZoneId>
          <LocalName>Hangzhou Zone E</LocalName>
        </SlaveZone>
      </SlaveZones>
    </Zone>
  </Zones>
```

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

JSON format

```
{
  "RequestId": "3FF183FF-F4AA-40E8-8B5D-90788C6799C2",
  "Zones": {
    "Zone": [
      {
        "SlaveZones": {
          "SlaveZone": [
            {
              "ZoneId": "cn-hangzhou-g",
              "LocalName": "Hangzhou Zone G"
            },
            {
              "ZoneId": "cn-hangzhou-d",
              "LocalName": "Hangzhou Zone D"
            }
          ]
        },
        "ZoneId": "cn-hangzhou-b",
        "LocalName": "Hangzhou Zone B"
      },
      {
        "SlaveZones": {
          "SlaveZone": [
            {
              "ZoneId": "cn-hangzhou-e",
              "LocalName": "Hangzhou Zone E"
            }
          ]
        },
        "ZoneId": "cn-hangzhou-d",
        "LocalName": "Hangzhou Zone D"
      },
      {
        "SlaveZones": {
          "SlaveZone": [
            {
              "ZoneId": "cn-hangzhou-f",
              "LocalName": "Hangzhou Zone F"
            },
            {
              "ZoneId": "cn-hangzhou-d",
              "LocalName": "Hangzhou Zone D"
            }
          ]
        },
        "ZoneId": "cn-hangzhou-e",
        "LocalName": "Hangzhou Zone E"
      },
      {
        "SlaveZones": {
          "SlaveZone": [
            {
              "ZoneId": "cn-hangzhou-e",
              "LocalName": "Hangzhou Zone E"
            }
          ]
        }
      }
    ]
  }
}
```

```
    }
  ],
  "ZoneId": "cn-hangzhou-f",
  "LocalName": "Hangzhou Zone F"
},
{
  "SlaveZones": {
    "SlaveZone": [
      {
        "ZoneId": "cn-hangzhou-h",
        "LocalName": "Hangzhou Zone H"
      },
      {
        "ZoneId": "cn-hangzhou-b",
        "LocalName": "Hangzhou Zone B"
      }
    ]
  },
  "ZoneId": "cn-hangzhou-g",
  "LocalName": "Hangzhou Zone G"
},
{
  "SlaveZones": {
    "SlaveZone": [
      {
        "ZoneId": "cn-hangzhou-g",
        "LocalName": "Hangzhou Zone G"
      }
    ]
  },
  "ZoneId": "cn-hangzhou-h",
  "LocalName": "Hangzhou Zone H"
}
]
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidParameter	Illegal parameter, query.namespace is not auth.	The error message returned because the service is unauthorized. Acquire the permissions and try again.

For a list of error codes, visit the [API Error Center](#).

6.5. DescribeRegions

Queries regions.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeRegions	The operation that you want to perform. Set the value to DescribeRegions .
AcceptLanguage	String	No	zh-CN	The supported language. Valid values: - zh-CN: Chinese - en-US: English - ja: Japanese
RegionId	String	Yes	cn-hangzhou	The ID of the region.

Response parameters

Parameter	Type	Example	Description
Regions	Array of Region		The list of regions.
Region			
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 of the region.
RequestId	String	1651FBB6-4FBF-49FF-A9F5-DF5D696C7EC6	The ID of the request.

Examples

Sample requests

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

Sample success responses

XML format

```
<DescribeRegionsResponse>
```

```
<RequestId>3F4E9DDA-CE30-5A46-AAC0-794CE4527E76</RequestId>
<Regions>
  <Region>
    <RegionId>cn-hangzhou</RegionId>
    <RegionEndpoint>slb.aliyuncs.com</RegionEndpoint>
    <LocalName>China (Hangzhou)</LocalName>
  </Region>
  <Region>
    <RegionId>cn-shanghai</RegionId>
    <RegionEndpoint>slb.aliyuncs.com</RegionEndpoint>
    <LocalName>China (Shanghai)</LocalName>
  </Region>
  <Region>
    <RegionId>cn-qingdao</RegionId>
    <RegionEndpoint>slb.aliyuncs.com</RegionEndpoint>
    <LocalName>China (Qingdao)</LocalName>
  </Region>
  <Region>
    <RegionId>cn-beijing</RegionId>
    <RegionEndpoint>slb.aliyuncs.com</RegionEndpoint>
    <LocalName>China (Beijing)</LocalName>
  </Region>
  <Region>
    <RegionId>cn-zhangjiakou</RegionId>
    <RegionEndpoint>slb.cn-zhangjiakou.aliyuncs.com</RegionEndpoint>
    <LocalName>China (Zhangjiakou)</LocalName>
  </Region>
  <Region>
    <RegionId>cn-huhehaote</RegionId>
    <RegionEndpoint>slb.cn-huhehaote.aliyuncs.com</RegionEndpoint>
    <LocalName>China (Hohhot)</LocalName>
  </Region>
  <Region>
    <RegionId>cn-wulanchabu</RegionId>
    <RegionEndpoint>slb.cn-wulanchabu.aliyuncs.com</RegionEndpoint>
    <LocalName>China (Ulaanbaatar)</LocalName>
  </Region>
  <Region>
    <RegionId>cn-shenzhen</RegionId>
    <RegionEndpoint>slb.aliyuncs.com</RegionEndpoint>
    <LocalName>China (Shenzhen)</LocalName>
  </Region>
  <Region>
    <RegionId>cn-heyuan</RegionId>
    <RegionEndpoint>slb.cn-heyuan.aliyuncs.com</RegionEndpoint>
    <LocalName>China (Heyuan)</LocalName>
  </Region>
  <Region>
    <RegionId>cn-guangzhou</RegionId>
    <RegionEndpoint>slb.cn-guangzhou.aliyuncs.com</RegionEndpoint>
    <LocalName>China (Guangzhou)</LocalName>
  </Region>
  <Region>
    <RegionId>cn-chengdu</RegionId>
    <RegionEndpoint>slb.cn-chengdu.aliyuncs.com</RegionEndpoint>
    <LocalName>China (Chengdu)</LocalName>
  </Region>
</Regions>
```

```

</Region>
<Region>
  <RegionId>cn-hongkong</RegionId>
  <RegionEndpoint>slb.aliyuncs.com</RegionEndpoint>
  <LocalName>China (Hong Kong)</LocalName>
</Region>
<Region>
  <RegionId>ap-southeast-1</RegionId>
  <RegionEndpoint>slb.aliyuncs.com</RegionEndpoint>
  <LocalName>Singapore (Singapore)</LocalName>
</Region>
<Region>
  <RegionId>ap-southeast-2</RegionId>
  <RegionEndpoint>slb.ap-southeast-2.aliyuncs.com</RegionEndpoint>
  <LocalName>Australia (Sydney)</LocalName>
</Region>
<Region>
  <RegionId>ap-southeast-3</RegionId>
  <RegionEndpoint>slb.ap-southeast-3.aliyuncs.com</RegionEndpoint>
  <LocalName>Malaysia (Kuala Lumpur)</LocalName>
</Region>
<Region>
  <RegionId>ap-southeast-5</RegionId>
  <RegionEndpoint>slb.ap-southeast-5.aliyuncs.com</RegionEndpoint>
  <LocalName>Indonesia (Jakarta)</LocalName>
</Region>
<Region>
  <RegionId>ap-northeast-1</RegionId>
  <RegionEndpoint>slb.ap-northeast-1.aliyuncs.com</RegionEndpoint>
  <LocalName>Japan (Tokyo)</LocalName>
</Region>
<Region>
  <RegionId>ap-south-1</RegionId>
  <RegionEndpoint>slb.ap-south-1.aliyuncs.com</RegionEndpoint>
  <LocalName>India (Mumbai)</LocalName>
</Region>
<Region>
  <RegionId>eu-central-1</RegionId>
  <RegionEndpoint>slb.eu-central-1.aliyuncs.com</RegionEndpoint>
  <LocalName>Germany (Frankfurt)</LocalName>
</Region>
<Region>
  <RegionId>eu-west-1</RegionId>
  <RegionEndpoint>slb.eu-west-1.aliyuncs.com</RegionEndpoint>
  <LocalName>UK (London)</LocalName>
</Region>
<Region>
  <RegionId>us-west-1</RegionId>
  <RegionEndpoint>slb.aliyuncs.com</RegionEndpoint>
  <LocalName>US (Silicon Valley)</LocalName>
</Region>
<Region>
  <RegionId>us-east-1</RegionId>
  <RegionEndpoint>slb.aliyuncs.com</RegionEndpoint>
  <LocalName>US (Virginia)</LocalName>
</Region>

```

```
</Region>
<Region>
  <RegionId>me-east-1</RegionId>
  <RegionEndpoint>slb.me-east-1.aliyuncs.com</RegionEndpoint>
  <LocalName>UAE (Dubai)</LocalName>
</Region>
<Region>
  <RegionId>ap-southeast-6</RegionId>
  <RegionEndpoint>slb.ap-southeast-6.aliyuncs.com</RegionEndpoint>
  <LocalName>Philippines (Manila)</LocalName>
</Region>
</Regions>
</DescribeRegionsResponse>
```

JSON **format**

```
{
  "RequestId": "3F4E9DDA-CE30-5A46-AAC0-794CE4527E76",
  "Regions": {
    "Region": [
      {
        "RegionId": "cn-hangzhou",
        "RegionEndpoint": "slb.aliyuncs.com",
        "LocalName": "China (Hangzhou)"
      },
      {
        "RegionId": "cn-shanghai",
        "RegionEndpoint": "slb.aliyuncs.com",
        "LocalName": "China (Shanghai)"
      },
      {
        "RegionId": "cn-qingdao",
        "RegionEndpoint": "slb.aliyuncs.com",
        "LocalName": "China (Qingdao)"
      },
      {
        "RegionId": "cn-beijing",
        "RegionEndpoint": "slb.aliyuncs.com",
        "LocalName": "China (Beijing)"
      },
      {
        "RegionId": "cn-zhangjiakou",
        "RegionEndpoint": "slb.cn-zhangjiakou.aliyuncs.com",
        "LocalName": "China (Zhangjiakou)"
      },
      {
        "RegionId": "cn-huhehaote",
        "RegionEndpoint": "slb.cn-huhehaote.aliyuncs.com",
        "LocalName": "China (Hohhot)"
      },
      {
        "RegionId": "cn-wulanchabu",
        "RegionEndpoint": "slb.cn-wulanchabu.aliyuncs.com",
        "LocalName": "China (Ulanqab)"
      },
      {

```

```
    "RegionId": "cn-shenzhen",
    "RegionEndpoint": "slb.aliyuncs.com",
    "LocalName": "China (Shenzhen)"
  },
  {
    "RegionId": "cn-heyuan",
    "RegionEndpoint": "slb.cn-heyuan.aliyuncs.com",
    "LocalName": "China (Heyuan)"
  },
  {
    "RegionId": "cn-guangzhou",
    "RegionEndpoint": "slb.cn-guangzhou.aliyuncs.com",
    "LocalName": "China (Guangzhou)"
  },
  {
    "RegionId": "cn-chengdu",
    "RegionEndpoint": "slb.cn-chengdu.aliyuncs.com",
    "LocalName": "China (Chengdu)"
  },
  {
    "RegionId": "cn-hongkong",
    "RegionEndpoint": "slb.aliyuncs.com",
    "LocalName": "China (Hong Kong)"
  },
  {
    "RegionId": "ap-southeast-1",
    "RegionEndpoint": "slb.aliyuncs.com",
    "LocalName": "Singapore (Singapore)"
  },
  {
    "RegionId": "ap-southeast-2",
    "RegionEndpoint": "slb.ap-southeast-2.aliyuncs.com",
    "LocalName": "Australia (Sydney)"
  },
  {
    "RegionId": "ap-southeast-3",
    "RegionEndpoint": "slb.ap-southeast-3.aliyuncs.com",
    "LocalName": "Malaysia (Kuala Lumpur)"
  },
  {
    "RegionId": "ap-southeast-5",
    "RegionEndpoint": "slb.ap-southeast-5.aliyuncs.com",
    "LocalName": "Indonesia (Jakarta)"
  },
  {
    "RegionId": "ap-northeast-1",
    "RegionEndpoint": "slb.ap-northeast-1.aliyuncs.com",
    "LocalName": "Japan (Tokyo)"
  },
  {
    "RegionId": "ap-south-1",
    "RegionEndpoint": "slb.ap-south-1.aliyuncs.com",
    "LocalName": "India (Mumbai)"
  },
  {
    "RegionId": "eu-central-1",
```

```
        "RegionEndpoint": "slb.eu-central-1.aliyuncs.com",
        "LocalName": "Germany (Frankfurt)"
    },
    {
        "RegionId": "eu-west-1",
        "RegionEndpoint": "slb.eu-west-1.aliyuncs.com",
        "LocalName": "UK (London)"
    },
    {
        "RegionId": "us-west-1",
        "RegionEndpoint": "slb.aliyuncs.com",
        "LocalName": "US (Silicon Valley)"
    },
    {
        "RegionId": "us-east-1",
        "RegionEndpoint": "slb.aliyuncs.com",
        "LocalName": "US (Virginia)"
    },
    {
        "RegionId": "me-east-1",
        "RegionEndpoint": "slb.me-east-1.aliyuncs.com",
        "LocalName": "UAE (Dubai)"
    },
    {
        "RegionId": "ap-southeast-6",
        "RegionEndpoint": "slb.ap-southeast-6.aliyuncs.com",
        "LocalName": "Philippines (Manila)"
    }
  ]
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidParameter	InvalidParameter	The error message returned because a parameter is set to an invalid value. Check the usage notes and change the value accordingly.
400	InvalidParameter	Illegal parameter, query.namespace is not auth.	The error message returned because you are unauthorized to perform the operation. Acquire the permissions and try again.

For a list of error codes, visit the [API Error Center](#).

6.6. DescribeLoadBalancerAttribute

Queries detailed information about a specified Classic Load Balancer (CLB) instance.

 **Note** If the backend servers are deployed in a vServer group, you can call the [DescribeVServerGroupAttribute](#) operation to query the backend server.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeLoadBalancerAttribute	The operation that you want to perform. Set the value to DescribeLoadBalancerAttribute .
LoadBalancerId	String	Yes	lb-bp1b6c719dfa08ex****	The ID of the CLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the CLB instance is deployed. You can call the DescribeRegions operation to query the most recent region list.

Response parameters

Parameter	Type	Example	Description
LoadBalancerId	String	lb-bp1b6c719dfa08ex**	The ID of the CLB instance.
RegionId	String	cn-hangzhou	The ID of the region where the CLB instance is deployed.
RegionIdAlias	String	hangzhou	The alias of the region where the CLB instance is created.
LoadBalancerName	String	lb-instance-test	The name of the CLB instance.

Parameter	Type	Example	Description
LoadBalancerStatus	String	active	The status of the CLB instance. Valid values: • inactive: The CLB instance is stopped. CLB instances in the inactive state do not forward traffic. • active: The CLB instance is running as expected. Newly created CLB instances are in the active state by default. • locked: The CLB instance is locked. CLB instances may be locked by Alibaba Cloud due to overdue payments or other reasons.
Address	String	42.XX.XX.6	The IP address of the CLB instance.
AddressType	String	internet	The type of IP address that the CLB instance uses to provide services.
NetworkType	String	vpc	The type of network where the CLB instance is deployed.
VpcId	String	vpc-25dvzy9f8****	The ID of the virtual private cloud (VPC) where the internal-facing CLB instance is deployed.
Bandwidth	Integer	5	The maximum bandwidth value of the Internet-facing CLB instance that is billed on a pay-by-bandwidth basis.
CreateTime	String	2017-08-31T02:49:05Z	The time when the CLB instance was created.
ListenerPorts	List	80	The frontend ports that are used by the CLB instance.
ListenerPortsAndProtocol	Array of ListenerPortAndProtocol		The frontend ports and protocols that are used by the CLB instance.
ListenerPortAndProtocol			
ListenerPort	Integer	80	The frontend port that is used by the CLB instance.
ListenerProtocol	String	https	The frontend protocol that is used by the CLB instance.

Parameter	Type	Example	Description
Description	String	ListenerDescription	The description of the port and protocol that are used by the listener.
ForwardPort	Integer	443	The port that the listener uses to distribute requests. The port must be open and use HTTPS.
ListenerForward	String	on	Indicates whether the listener is enabled to distribute requests.
BackendServers	Array of BackendServer		The list of backend servers that are added to the CLB instance.
BackendServer			
ServerId	String	i-djghr2****	The ID of the backend server.
Weight	Integer	90	The weight of the backend server.
Description	String	BackendServerToReceiveRequests	The description of the backend server.
Type	String	ecs	The type of the backend server.
MasterZoneId	String	cn-hangzhou-b	The ID of the primary zone to which the CLB instance belongs.
AddressIPVersion	String	ipv4	The IP version of the CLB instance. Valid values: ipv4 and ipv6 .
AutoReleaseTime	Long	1513947075000	The timestamp generated when the CLB instance was released.
CreateTimeStamp	Long	1504147745000	The timestamp generated when the CLB instance was created.
DeleteProtection	String	off	Indicates whether deletion protection is enabled for the CLB instance. Valid values: on and off .
EndTime	String	2022-09-08T16:00:00Z	The time when the CLB instance was stopped.

Parameter	Type	Example	Description
EndTimeStamp	Long	32493801600000	The timestamp generated when the CLB instance was stopped.
InternetChargeType	String	paybytraffic	The billing method of the Internet-facing CLB instance. The value is set to PayOnDemand (default): pay-as-you-go
ListenerPortsAndProtocol	Array of ListenerPortAndProtocol		The ports or protocols of the listeners.
ListenerPortAndProtocol			
ListenerPort	Integer	443	The frontend port that is used by the CLB instance.
ListenerProtocol	String	http	The frontend protocol that is used by the CLB instance.
LoadBalancerSpec	String	slb.s1.small	The specification of the CLB instance.
ModificationProtectionReason	String	ManageInstance	The reason why the configuration read-only mode is enabled. The value must be 1 to 80 characters in length. It must start with a letter and can contain digits, periods (.), underscores (_), and hyphens (-).  Note This parameter is required only when <code>ModificationProtectionStatus</code> is set to ConsoleProtection.
ModificationProtectionStatus	String	ConsoleProtection	Indicates whether the configuration read-only mode is enabled for the CLB instance. Valid values: NonProtection: indicates that the configuration read-only mode is disabled. After you disable the configuration read-only mode, the value of <code>ModificationProtectionReason</code> is cleared. ConsoleProtection: indicates that the configuration read-only mode is enabled.

Parameter	Type	Example	Description
PayType	String	PayOnDemand	The billing method of the CLB instance. The value is set to • PayOnDemand (default): pay-as-you-go
RenewalCycUnit	String	Month	The auto-renewal cycle. Valid values: Year and Month. Default value: Month.  Note This parameter is valid only if you create a subscription CLB instances on the Alibaba Cloud China site. In this case, the PayType parameter must be set to PrePay and the RenewalStatus parameter must be set to AutoRenewal.
RenewalDuration	Integer	1	Auto-renewal duration. This parameter is valid only if RenewalStatus is set to AutoRenewal. • Valid values when the PeriodUnit parameter is set to Year: 1, 2, and 3. • Valid values when the PeriodUnit parameter is set to Month: 1, 2, 3, and 6.  Note This parameter is valid only when you create a subscription CLB instance on the Alibaba Cloud China site. In this case, the PayType parameter must be set to PrePay.

Parameter	Type	Example	Description
RenewalStatus	String	AutoRenewal	The renewal status: AutoRenewal: The CLB instance is automatically renewed. Normal: You must manually renew the CLB instance. NotRenewal: The CLB instance will not be renewed upon expiration. If this value is returned, the system does not send notifications until three days before the expiration date.  Note This parameter is valid only when you create a subscription CLB instance on the Alibaba Cloud China site. In this case, the PayType parameter must be set to PrePay.
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.
ResourceGroupId	String	rg-atstuj3rtop****	The ID of the enterprise resource group.
SlaveZoneId	String	cn-hangzhou-d	The ID of the secondary zone to which the CLB instance belongs.
VSwitchId	String	vsw-255ecrwq5****	The ID of the vSwitch to which the internal-facing CLB instance belongs.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeLoadBalancerAttribute
&LoadBalancerId=lb-bp1b6c719dfa08ex****
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeLoadBalancerAttributeResponse>
  <RenewalDuration>1</RenewalDuration>
  <EndTime>2022-09-08T16:00:00Z</EndTime>
  <Address>42.XX.XX.6</Address>
  <RenewalStatus>AutoRenewal</RenewalStatus>
  <ResourceGroupId>rg-atstuj3rtop****</ResourceGroupId>
  <SlaveZoneId>cn-hangzhou-d</SlaveZoneId>
  <VSwitchId>vsw-255ecrwq5****</VSwitchId>
```

```

<ResourceGroupId>rg-atstujsrtop****</ResourceGroupId>
<ListenerPortsAndProtocal>
  <ListenerPortAndProtocal>
    <ListenerPort>443</ListenerPort>
    <ListenerProtocal>http</ListenerProtocal>
  </ListenerPortAndProtocal>
</ListenerPortsAndProtocal>
<AddressIPVersion>ipv4</AddressIPVersion>
<LoadBalancerId>lb-bp1b6c719dfa08ex****</LoadBalancerId>
<ListenerPortsAndProtocol>
  <ListenerPortAndProtocol>
    <ListenerForward>on</ListenerForward>
    <ListenerPort>80</ListenerPort>
    <Description> ListenerDescription</Description>
    <ForwardPort>443</ForwardPort>
    <ListenerProtocol>https</ListenerProtocol>
  </ListenerPortAndProtocol>
</ListenerPortsAndProtocol>
<BackendServers>
  <BackendServer>
    <Type>ecs</Type>
    <Description>BackendServerDescription</Description>
    <ServerId>i-djghr2****</ServerId>
    <Weight>90</Weight>
  </BackendServer>
</BackendServers>
<ModificationProtectionStatus>ConsoleProtection</ModificationProtectionStatus>
<LoadBalancerSpec>slb.s1.small</LoadBalancerSpec>
<NetworkType>vpc</NetworkType>
<Bandwidth>5</Bandwidth>
<ModificationProtectionReason>ManagedInstance</ModificationProtectionReason>
<MasterZoneId>cn-hangzhou-b</MasterZoneId>
<ListenerPorts>
  <ListenerPort>80</ListenerPort>
</ListenerPorts>
<RequestId>365F4154-92F6-4AE4-92F8-7FF34B540710</RequestId>
<CreateTime>2017-08-31T02:49:05Z</CreateTime>
<VSwitchId>vsw-255ecrwq5****</VSwitchId>
<RenewalStatus>AutoRenewal</RenewalStatus>
<RenewalCycUnit>Month</RenewalCycUnit>
<PayType>PayOnDemand</PayType>
<SlaveZoneId>cn-hangzhou-d</SlaveZoneId>
<InternetChargeType>paybytraffic</InternetChargeType>
<RegionIdAlias>hangzhou</RegionIdAlias>
<LoadBalancerName>lb-instance-test</LoadBalancerName>
<DeleteProtection>off</DeleteProtection>
<VpcId>vpc-25dvzy9f8****</VpcId>
<EndTimeStamp>32493801600000</EndTimeStamp>
<RegionId>cn-hangzhou</RegionId>
<AddressType>internet</AddressType>
<LoadBalancerStatus>active</LoadBalancerStatus>
<CreateTimeStamp>1504147745000</CreateTimeStamp>
<AutoReleaseTime>1513947075000</AutoReleaseTime>
</DescribeLoadBalancerAttributeResponse>

```

JSON format

```
{
  "RenewalDuration": 1,
  "EndTime": "2022-09-08T16:00:00Z",
  "Address": "42.XX.XX.6",
  "ResourceGroupId": "rg-atstuj3rtop****",
  "ListenerPortsAndProtocol": {
    "ListenerPortAndProtocol": {
      "ListenerPort": 443,
      "ListenerProtocol": "http"
    }
  },
  "AddressIPVersion": "ipv4",
  "LoadBalancerId": "lb-bplb6c719dfa08ex****",
  "ListenerPortsAndProtocol": {
    "ListenerPortAndProtocol": {
      "ListenerForward": "on",
      "ListenerPort": 80,
      "Description": "ListenerDescription"
      "ForwardPort": 443,
      "ListenerProtocol": "https"
    }
  },
  "BackendServers": {
    "BackendServer": {
      "Type": "ecs",
      "Description": <Description>BackendServerDescription</Description>
      "ServerId": "i-djghr2****",
      "Weight": 90
    }
  },
  "ModificationProtectionStatus": "ConsoleProtection",
  "LoadBalancerSpec": "slb.s1.small",
  "NetworkType": "vpc",
  "Bandwidth": 5,
  "ModificationProtectionReason": "ManagedInstance"
  "MasterZoneId": "cn-hangzhou-b",
  "ListenerPorts": {
    "ListenerPort": 80
  },
  "RequestId": "365F4154-92F6-4AE4-92F8-7FF34B540710",
  "CreateTime": "2017-08-31T02:49:05Z",
  "VSwitchId": "vsw-255ecrwq5****",
  "RenewalStatus": "AutoRenewal",
  "RenewalCycUnit": "Month",
  "PayType": "PayOnDemand",
  "SlaveZoneId": "cn-hangzhou-d",
  "InternetChargeType": "paybytraffic",
  "RegionIdAlias": "hangzhou",
  "LoadBalancerName": "lb-instance-test",
  "DeleteProtection": "off",
  "VpcId": "vpc-25dvzy9f8****",
  "EndTimeStamp": 32493801600000,
  "RegionId": "cn-hangzhou",
  "AddressType": "internet",

```

```
"LoadBalancerStatus": "active",
"CreateTimeStamp": 1504147745000,
"AutoReleaseTime": 1513947075000
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

6.7. DescribeLoadBalancers

Queries Server Load Balancer (SLB) instances.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeLoadBalancers	The operation that you want to perform. Set the value to DescribeLoadBalancers .
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SLB instance is deployed. You can query region IDs from the Regions and zones list or by calling the DescribeRegions operation.
ServerId	String	No	vm-server-23****group	The ID of the Elastic Compute Service (ECS) instance that is specified as a backend server of the SLB instance.

Parameter	Type	Required	Example	Description
AddressIPVersion	String	No	ipv4	The IP version. Valid values: ipv4 and ipv6. You can create IPv6 instances for high-performance SLB instances that are deployed in the following zones: • China (Hangzhou): Zone E and Zone F • China (Beijing): Zone F and Zone G • China (Shanghai): Zone D and Zone E • China (Shenzhen): Zone D, Zone C, and Zone E • China (Hong Kong): Zone B and Zone C
LoadBalancerStatus	String	No	active	The state of the SLB instance. Valid values: • inactive: The listener in this state does not forward requests. • active: After you create an instance, it is in the active state by default. • locked: The error message returned because the instance is locked.
LoadBalancerId	String	No	lb-bp1b6c719dfa****	The ID of the SLB instance. You can specify up to 10 IDs in each request. Separate multiple IDs with commas (,).
LoadBalancerName	String	No	lb-bp1o94dp5i6ea***	The name of the SLB instance. The name must be 1 to 80 characters in length, and can contain digits, periods (.), underscores (_), and hyphens (-). It must start with a letter. You can specify up to 10 names in each request. Separate multiple names with commas (,).
ServerIntranetAddress	String	No	10.XX.XX.102	The private IP address of the ECS instance that is specified as a backend server of the SLB instance. You can specify multiple IP addresses to query SLB instances. Separate multiple IP addresses with commas (,).

Parameter	Type	Required	Example	Description
AddressType	String	No	intranet	The type of network where the SLB instance is deployed. Valid values: intranet and internet. internet: After an Internet-facing SLB instance is created, the system assigns a public IP address to the SLB instance. Then, the SLB instance can forward requests from the Internet. intranet: After an internal-facing SLB instance is created, the system assigns a private IP address to the SLB instance. Then, the SLB instance can forward only internal requests.
InternetChargeType	String	No	paybybandwidth	The metering method of the Internet-facing SLB instance. Valid values: paybybandwidth and paybytraffic. paybybandwidth: pay-by-bandwidth. paybytraffic: pay-by-data-transfer.  Note If you do not set this parameter, the billing method of the SLB instance remains unchanged.
VpcId	String	No	vpc-bp1aevy8sof****	The ID of the virtual private cloud (VPC) to which the SLB instance belongs.
VSwitchId	String	No	vsw-bp12mw1f8k3****	The ID of the vSwitch to which the SLB instance belongs.
NetworkType	String	No	vpc	The type of network where the internal-facing SLB instance is deployed. Valid values: vpc and classic. vpc: a VPC classic: a classic network
Address	String	No	192.XX.XX.6	The IP address that the SLB instance uses to provide services.
MasterZoneId	String	No	cn-hangzhou-b	The ID of the primary zone to which the SLB instance belongs.

Parameter	Type	Required	Example	Description
SlaveZoneId	String	No	cn-hangzhou-d	The ID of the secondary zone to which the SLB instance belongs. Multiple zones are not supported for users whose workloads are deployed on Alibaba Finance Cloud.
Tags	String	No	<pre>[{"tagKey": "Key1", "tagValue": "Value1"}]</pre>	The tags that are added to the SLB instances. The tags must be key-value pairs that are contained in a JSON dictionary. You can specify up to 10 tags in each request.
PayType	String	No	PayOnDemand	The billing method of the SLB instance. Valid values: PayOnDemand and PrePay . • PayOnDemand: pay-as-you-go • PrePay: subscription
ResourceGroupId	String	No	rg-acfmxazb4p****	The ID of the enterprise resource group.
PageNumber	Integer	No	1	The number of the page to return.
PageSize	Integer	No	50	The number of entries to return on each page. Valid values: 1 to 100.  Note If you set PageSize, you must also set PageNumber.

Response parameters

Parameter	Type	Example	Description
LoadBalancers	Array of LoadBalancer		The list of SLB instances.
LoadBalancer			
LoadBalancerId	String	lb-bp1b6c719dfa****	The ID of the SLB instance.

Parameter	Type	Example	Description
LoadBalancerName	String	lb-bp1o94dp5i6ea****	The name of the SLB instance.
LoadBalancerStatus	String	active	The state of the SLB instance. Valid values: inactive: The listener in this state does not forward requests. active: After you create an instance, it is in the active state by default. locked: The error message returned because the instance is locked.
Address	String	100.XX.XX.28	The IP address of the SLB instance.
RegionId	String	cn-hangzhou	The ID of the region where the SLB instance is deployed.
RegionIdAlias	String	hangzhou	The name of the region where the SLB instance is deployed.
AddressType	String	intranet	The type of network where the SLB instance is deployed.
VSwitchId	String	vsw-255ecr****	The ID of the vSwitch to which the internal-facing SLB instance belongs.
VpcId	String	vpc-25dvzy9f8****	The ID of the VPC to which the internal-facing SLB instance belongs.
NetworkType	String	vpc	The type of network where the internal-facing SLB instance is deployed. Valid values: vpc: a VPC classic: a classic network
CreateTime	String	2017-08-31T02:49:05Z	The time when the SLB instance was created.
MasterZoneId	String	cn-hangzhou-b	The ID of the primary zone where the SLB instance is deployed.
SlaveZoneId	String	cn-hangzhou-d	The ID of the secondary zone where the SLB instance is deployed.

Parameter	Type	Example	Description
AddressIPVersion	String	ipv4	The IP version. Valid values: ipv4 and ipv6 .
CreateTimeStamp	Long	1504147745000	The timestamp generated when the SLB instance was created.
InternetChargeType	String	paybybandwidth	The metering method of the Internet-facing SLB instance. Valid values: paybybandwidth and paybytraffic. paybybandwidth: pay-by-bandwidth paybytraffic (default): pay-by-data-transfer  Note If the value of the PayType parameter is PrePay, only pay-by-bandwidth is supported.
ModificationProtectionReason	String	ManageInstance	The reason why the configuration read-only mode is enabled. The value must be 1 to 80 characters in length. It must start with a letter and can contain digits, periods (.), underscores (_), and hyphens (-).  Note This parameter is returned only when <code>ModificationProtectionStatus</code> is set to ConsoleProtection.
ModificationProtectionStatus	String	ConsoleProtection	Indicates whether the configuration read-only mode is enabled for the SLB instance. NonProtection: the configuration read-only mode is disabled. After the configuration read-only mode is disabled, the value of <code>ModificationProtectionReason</code> is cleared. ConsoleProtection: the configuration read-only mode is enabled.
PayType	String	PrePay	The billing method of the SLB instance. Valid values: PayOnDemand and PrePay .
ResourceGroupId	String	rg-atstuj3r****	The ID of the enterprise resource group.

Parameter	Type	Example	Description
PageNumber	Integer	1	The number of the returned page.
PageSize	Integer	50	The number of entries returned on the current page.
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.
TotalCount	Integer	1	The total number of SLB instances that are returned after the tags are matched against the specified conditions.

Examples

Sample requests

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

Sample success responses

`XML` format

```
<DescribeLoadBalancersResponse>
  <PageNumber>1</PageNumber>
  <TotalCount>1</TotalCount>
  <PageSize>50</PageSize>
  <LoadBalancers>
    <LoadBalancer>
      <CreateTimeStamp>1541679713000</CreateTimeStamp>
      <LoadBalancerName>lb-bp1o94dp5i6ea*****</LoadBalancerName>
      <RegionIdAlias>hangzhou</RegionIdAlias>
      <ResourceGroupId>rg-acfmxaz*****y</ResourceGroupId>
      <AddressIPVersion>ipv4</AddressIPVersion>
      <LoadBalancerId>lb-bp1b6c*****fuca5</LoadBalancerId>
      <VSwitchId>vsw-bp12mw1f*****bmlj</VSwitchId>
      <InternetChargeType>4</InternetChargeType>
      <VpcId>vpc-bp1aevy8*****5cm</VpcId>
      <SlaveZoneId>cn-hangzhou-d</SlaveZoneId>
      <NetworkType>vpc</NetworkType>
      <MasterZoneId>cn-hangzhou-b</MasterZoneId>
      <CreateTime>2018-11-08T20:21Z</CreateTime>
      <Address>192.168.0.**</Address>
      <RegionId>cn-hangzhou</RegionId>
      <AddressType>intranet</AddressType>
      <PayType>PayOnDemand</PayType>
      <LoadBalancerStatus>active</LoadBalancerStatus>
    </LoadBalancer>
  </LoadBalancers>
  <RequestId>1C7445CB-C21C-4C19-9A3C-65C3190D1944</RequestId>
</DescribeLoadBalancersResponse>
```

JSON format

```
{
  "PageNumber": 1,
  "TotalCount": 1,
  "PageSize": 50,
  "LoadBalancers": {
    "LoadBalancer": [
      {
        "CreateTimeStamp": 1541679713000,
        "LoadBalancerName": "lb-bplo94dp5i6ea*****",
        "RegionIdAlias": "hangzhou",
        "ResourceGroupId": "rg-acfmxazb4p****",
        "AddressIPVersion": "ipv4",
        "LoadBalancerId": "lb-bplb6c719d*****exfuca5",
        "VSwitchId": "vsw-bpl2mw1f8k*****bmlj",
        "InternetChargeType": "4",
        "VpcId": "vpc-bp1aevy8sof*****5cm",
        "SlaveZoneId": "cn-hangzhou-d",
        "NetworkType": "vpc",
        "MasterZoneId": "cn-hangzhou-b",
        "CreateTime": "2018-11-08T20:21Z",
        "Address": "192.168.0.6",
        "RegionId": "cn-hangzhou",
        "AddressType": "intranet",
        "PayType": "PayOnDemand",
        "LoadBalancerStatus": "active"
      }
    ]
  },
  "RequestId": "1C7445CB-C21C-4C19-9A3C-65C3190D1944"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

6.8. SetLoadBalancerName

Modifies the name of a Server Load Balancer (SLB) instance.

Make the API call

You can use [OpenAPI Explorer](#) to make API calls, search for API calls, perform debugging, and generate SDK example code.

Request parameters

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

Parameter	Type	Required ?	Example value	Description
LoadBalancerId	String	Yes	lb-bp1b6c719dfa08e*****	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. It can contain letters, numbers, periods (.), underscores (_), and hyphens (-).
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
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=SetLoadBalancerName
&LoadBalancerId=lb-bp1b6c719dfa08e*****
&LoadBalancerName=abc1
&<CommonParameters>
```

Response example

XML format

```
<SetLoadBalancerStatusResponse>
  <RequestId>3C7F675E-9F82-4806-BA47-FF57E3ACC850</RequestId>
</SetLoadBalancerStatusResponse>
```

JSON format

```
{
  "RequestId": "3C7F675E-9F82-4806-BA47-FF57E3ACC850"
}
```

Errors

For a list of error codes, visit the [API Error Center](#).

6.9. SetLoadBalancerStatus

Modifies the state of a Classic Load Balancer (CLB) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	SetLoadBalancerStatus	The operation that you want to perform. Set the value to SetLoadBalancerStatus .
LoadBalancerId	String	Yes	lb-bp1b6c719dfa08e*****	The ID of the CLB instance.
LoadBalancerStatus	String	Yes	active	The state of the CLB instance. Valid values: active and inactive. • active (default) If a CLB instance is in the active state, listeners of the CLB instance can forward traffic based on forwarding rules. By default, newly created CLB instances are in the active state. • inactive If a CLB instance is in the inactive state, listeners of the CLB instance do not forward traffic.  Note If all listeners of a CLB instance are deleted, the CLB instance automatically switches to the inactive state.

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-hangzhou	The ID of the region where the CLB instance is deployed. You can query region IDs from the Regions and zones list or by calling the DescribeRegions operation.

Response parameters

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

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=SetLoadBalancerStatus
&LoadBalancerId=lb-bp1b6c719dfa08e*****
&LoadBalancerStatus=active
&<Common request parameters>
```

Sample success responses

XML format

```
<SetLoadBalancerStatusResponse>
  <RequestId>E6DDFE22-F019-4F34-B8DD-FD14973450A6</RequestId>
</SetLoadBalancerStatusResponse>
```

JSON format

```
{
  "RequestId": "E6DDFE22-F019-4F34-B8DD-FD14973450A6"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

6.10. 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: ModifyLoadBalancerInternetSpec
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.
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. 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 <code>InternetChargeType</code> parameter is <code>paybytraffic</code>).

Name	Type	Required ?	Example value	Description
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=ModifyLoadBalancerInternetSpec
&LoadBalancerId=lb-bp1b6c719dfa08exfuca5
&<CommonParameters>
```

Normal response examples

XML format

```
<ModifyLoadBalancerInternetSpecResponse>
  <RequestId>E4DD2D80-8DC0-4A2E-BFBA-BE983A31AFED</RequestId>
</ModifyLoadBalancerInternetSpecResponse>
```

JSON format

```
{
  "RequestId": "E4DD2D80-8DC0-4A2E-BFBA-BE983A31AFED"
}
```

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.
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.](#)

6.11. SetLoadBalancerDeleteProtection

Sets the status of the deletion protection function.

Debug

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

Request parameters

Parameter	Type	Required ?	Example value	Description
Action	String	Yes	SetLoadBalancerDeleteProtection	The name of this action. Value: SetLoadBalancerDeleteProtection
DeleteProtection	String	Yes	off	The status of the deletion protection function. Valid values: on off
LoadBalancerId	String	Yes	lb-bp1b6c719dfa08e****	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The region ID of the SLB instance. To query the region ID, call DescribeRegions .

Response parameters

Parameter	Type	Example value	Description
RequestId	String	791D8B68-AE0F-4174-AF54-088C8B3C5D54	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=SetLoadBalancerDeleteProtection
&DeleteProtection=off
&LoadBalancerId=lb-bp1b6c719dfa08e*****
&RegionId=cn-hangzhou
&<CommonParameters>
```

Response examples

XML format

```
<SetLoadBalancerDeleteProtectionResponse>
  <RequestId>791D8B68-AE0F-4174-AF54-088C8B3C5D54</RequestId>
</SetLoadBalancerDeleteProtectionResponse>
```

JSON format

```
{
  "RequestId": "791D8B68-AE0F-4174-AF54-088C8B3C5D54"
}
```

Error codes

See [common error codes](#).

6.12. SetLoadBalancerModificationProtection

Enables or disables modification protection for a Server Load Balancer (SLB) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request Parameters

Parameter	Type	Required	Example	Description
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Parameter	Type	Required	Example	Description
Action	String	Yes	SetLoadBalancerModificationProtection	The operation that you want to perform. Set the value to SetLoadBalancerModifyProtection .
LoadBalancerId	String	Yes	lb-bp1b6c719dfa08e****	The ID of the SLB instance.
ModificationProtectionStatus	String	Yes	ConsoleProtection	The modification protection state of the SLB instance: • NonProtection: disables modification protection. After you disable modification protection, the value of <code>ModificationProtectionReason</code> is cleared. • ConsoleProtection: enables modification protection.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SLB instance is deployed. You can call the DescribeRegions operation to query region IDs.
ModificationProtectionReason	String	No	Modify configurations	Enter the reason why you want to enable modification protection. The value must be 1 to 80 characters in length. It must start with a letter and can contain digits, periods (.), underscores (_), and hyphens (-).  Note This parameter is required only when <code>ModificationProtectionStatus</code> is set to ConsoleProtection.

Response parameters

Field	Type	Example	Description
RequestId	String	791D8B68-AE0F-4174-AF54-088C8B3C5D54	The ID of the request.

Examples

Sample request

```
http(s)://[Endpoint]/? Action=SetLoadBalancerModificationProtection
&LoadBalancerId=lb-bp1b6c719dfa08e*****
&ModificationProtectionStatus=ConsoleProtection
&RegionId=cn-hangzhou
&<Common request parameters>
```

Sample success responses

XML format

```
<RequestId>791D8B68-AE0F-4174-AF54-088C8B3C5D54</RequestId>
```

JSON format

```
{"RequestId": "791D8B68-AE0F-4174-AF54-088C8B3C5D54"}
```

Errors

For a list of error codes, visit the [API Error Center](#).

7.UDP listeners

7.1. CreateLoadBalancerUDPListener

Creates a UDP listener.

You cannot query the source IP addresses of requests if you create UDP listeners for a Classic Load Balancer (CLB) instance that is deployed in a classic network.

 **Note** Newly created listeners are in the **stopped** state. After a listener is created, you can call the **StartLoadBalancerListener** operation to start the listener. After the listener is started, the listener can forward traffic to backend servers.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateLoadBalancerUDPListener	The operation that you want to perform. Set the value to CreateLoadBalancerUDPListener .
Bandwidth	Integer	Yes	34	The maximum bandwidth value of the listener. Valid values: -1 and 1 to 5120. -1: For a pay-by-data-transfer Internet-facing CLB instance, you can set the value to -1. This indicates that the bandwidth is unlimited.
ListenerPort	Integer	Yes	80	The frontend port that is used by the CLB instance. Valid values: 1 to 65535.
LoadBalancerId	String	Yes	lb-bp1ygod3yctvg1y7*****	The ID of the CLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the CLB instance is deployed.

Parameter	Type	Required	Example	Description
BackendServerPort	Integer	No	80	The backend port that is used by the CLB instance. Valid values: 1 to 65535 . If the VServerGroupId parameter is not set, this parameter is required.
Scheduler	String	No	wrr	The scheduling algorithm. Valid values: • wrr (default): Backend servers with higher weights receive more requests than those with lower weights. • rr: Requests are distributed to backend servers in sequence. • sch: specifies consistent hashing that is based on source IP addresses. Requests from the same source IP address are distributed to the same backend server. • tch: specifies consistent hashing that is based on four factors: source IP address, destination IP address, source port number, and destination port number. Requests that contain the same preceding information are distributed to the same backend server. • qch: specifies consistent hashing that is based on QUIC connection IDs. Requests that contain the same QUIC connection ID are distributed to the same backend server. Only guaranteed-performance CLB instances support sch, tch, and qch.
HealthyThreshold	Integer	No	4	The number of consecutive successful health checks that must occur before an unhealthy backend server is declared healthy. In this case, the health check state is changed from fail to success . Valid values: 2 to 10 .
UnhealthyThreshold	Integer	No	4	The number of consecutive failed health checks that must occur before a healthy backend server is declared unhealthy. In this case, the health check state is changed from success to fail . Valid values: 2 to 10 .

Parameter	Type	Required	Example	Description
HealthCheckConnectTimeout	Integer	No	100	The time period to wait for a health check response. If a backend Elastic Compute Service (ECS) instance does not send an expected response within the specified period of time, the ECS instance is considered unhealthy. Valid values: 1 to 300. Unit: seconds.
HealthCheckConnectPort	Integer	No	80	The port that is used for health checks. Valid values: 1 to 65535. If this parameter is not set, the port that is specified in BackendServerPort is used for health checks.
healthCheckInterval	Integer	No	3	The time interval between two consecutive health checks. Valid values: 1 to 50. Unit: seconds.
healthCheckReq	String	No	hello	The request string for UDP listener health checks. The string must be 1 to 64 characters in length and can contain only letters and digits.
healthCheckExp	String	No	ok	The response string for UDP listener health checks. The string must be 1 to 64 characters in length and can contain only letters and digits.
VServerGroupID	String	No	rsp-cige6j****8	The ID of the vServer group.
MasterSlaveServerGroupID	String	No	rsp-0bfucwu****	The ID of the primary/secondary server group.  Note You cannot specify the vServer group ID and primary/secondary server group ID at the same time.
ACLID	String	No	123	The ID of the access control list (ACL) to which the listener is bound. This parameter is required if the ACLStatus parameter is set to on.

Parameter	Type	Required	Example	Description
AclType	String	No	white	The type of the ACL. Valid values: white: specifies the ACL as the whitelist. Only requests from the IP addresses or CIDR blocks in the ACL are forwarded. The whitelist applies to scenarios where you want to allow only specific IP addresses to access an application. After a whitelist is configured, only IP addresses in the whitelist can access the CLB listener, which can lead to specific business risks. After a whitelist is enabled for a listener, if no IP address is added to the whitelist, the listener does not distribute requests. black: All requests from IP addresses or address segments set in the selected RAM policy group will not be forwarded. Blacklist is applicable to scenarios where applications only restrict access to certain IP addresses. If the blacklist is enabled but the corresponding ACL does not contain IP addresses, the CLB listener forwards all requests. This parameter takes effect if the AclStatus parameter is set to on.
AclStatus	String	No	off	Specifies whether to enable the access control feature. Valid values: on and off. Default value: off.
Description	String	No	test	The description of the listener. The description must be 1 to 80 characters in length, and can contain letters, digits, hyphens (-), forward slashes (/), periods (.), and underscores (_). Chinese characters are supported.

Response parameters

Parameter	Type	Example	Description
RequestId	String	06F00FBB-3D9E-4CCE-9D43-1A6946A75456	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateLoadBalancerUDPLListener
&Bandwidth=34
&ListenerPort=80
&LoadBalancerId=lb-bplygod3yctvgly7*****
&<Common request parameters>
```

Sample success responses

XML format

```
<CreateLoadBalancerUDPLListenerResponse>
  <RequestId>06F00FBB-3D9E-4CCE-9D43-1A6946A75456</RequestId>
</CreateLoadBalancerUDPLListenerResponse>
```

JSON format

```
{
  "RequestId": "06F00FBB-3D9E-4CCE-9D43-1A6946A75456"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	Abs.VServerGroupIdAndMasterSlaveServerGroupId.MissMatch	The parameters VServerGroupId or MasterSlaveServerGroupId miss match.	The error message returned because the VServerGroupId parameter or the MasterSlaveServerGroupId parameter does not match.
400	LbNotSupportTcpssl	You cannot create a TCP SSL type listener for the specified load balancer.	The error message returned because the specified instance does not allow you to create tcpssl listeners.
400	LbSupportTcpsslOnly	The specified load balancer supports TCP SSL type listener only.	The error message returned because the specified instance allows you to create only tcpssl listeners.

HttpCode	Error code	Error message	Description
400	ListenerNotSupportRule	You cannot create a rule for the specified listener.	The error message returned because the specified listener does not allow you to create forwarding rules.
400	InvalidParamLength.HealthCheckReq	The length of the parameter HealthCheckReq is invalid.	The error message returned because the value of the HealthCheckReq parameter is invalid in length.
400	VipNotSupportQuicVersion	The listener does not support the parameter of QuicVersion.	The error message returned because the listener does not support the QuicVersion parameter.

For a list of error codes, visit the [API Error Center](#).

7.2. SetLoadBalancerUDPListenerAttribute

Modifies the configurations of a UDP listener.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	SetLoadBalancerUDPListenerAttribute	The operation that you want to perform. Set the value to SetLoadBalancerUDPListenerAttribute .
ListenerPort	Integer	Yes	80	The frontend port that is used by the Server Load Balancer (SLB) instance. Valid values: 1 to 65535.
LoadBalancerId	String	Yes	lb-bp1rtfnodmywb43ecu4sf-c****	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SLB instance is deployed.

Parameter	Type	Required	Example	Description
Bandwidth	Integer	No	-1	The maximum bandwidth value for the listener. Valid values: • -1: For a pay-by-data-transfer Internet-facing SLB instance, you can set the value to -1. This indicates that the bandwidth is unlimited. • 1 to 5120: For a pay-by-bandwidth Internet-facing SLB instance, you can specify the maximum bandwidth value for each listener. The sum of maximum bandwidth values of all listeners cannot exceed the maximum bandwidth value of the SLB instance.
Scheduler	String	No	wrr	The scheduling algorithm. Valid values: • wrr: Backend servers that have higher weights receive more requests than those that have lower weights. If two backend servers have the same weight, the backend server with fewer connections is expected to receive more requests. • rr: Requests are sequentially distributed to backend servers. This is the default forwarding algorithm. • sch: specifies consistent hashing that is based on source IP addresses. Requests from the same source IP address are distributed to the same backend server. • tch: specifies consistent hashing that is based on four factors: source IP address, destination IP address, source port number, and destination port number. Requests that contain the same preceding information are distributed to the same backend server. • qch: specifies consistent hashing that is based on QUIC connection IDs. Requests that contain the same QUIC connection ID are distributed to the same backend server.  Note Only guaranteed-performance SLB instances support sch, tch, and qch.

Parameter	Type	Required	Example	Description
HealthyThreshold	Integer	No	4	Specifies the number of successful health checks that must be consecutively performed before a backend server can be declared healthy (from fail to success). Valid values: 2 to 10.
UnhealthyThreshold	Integer	No	4	Specifies the number of times that a healthy backend server must consecutively fail health checks before it is declared unhealthy (from success to fail). Valid values: 2 to 10.
HealthCheckConnectTimeout	Integer	No	100	The timeout period of a health check response. If a backend Elastic Compute Service (ECS) instance does not send an expected response within the specified period of time, the ECS instance is considered unhealthy. Valid values: 1 to 300.  Note If the value of the HealthCheckConnectTimeout parameter is smaller than that of the HealthCheckInterval parameter, the value of the HealthCheckConnectTimeout parameter is ignored and the value of the HealthCheckInterval parameter is regarded as the waiting period.
HealthCheckConnectPort	Integer	No	80	The port that is used for health checks. Valid values: 1 to 65535.
HealthCheckInterval	Integer	No	5	The time interval between two consecutive health checks. Valid values: 1 to 50. Unit: seconds.

Parameter	Type	Required	Example	Description
healthCheckReq	String	No	hello	The request string for UDP listener health checks. The string must be 1 to 64 characters in length and can contain only letters and digits.
healthCheckExp	String	No	ok	The response string for UDP listener health checks. The string must be 1 to 64 characters in length and can contain only letters and digits.
VServerGroup	String	No	on	Specifies whether to use a vServer group. Valid values: on and off .  Note The value of VserverGroup and the value of MasterSlaveServerGroup cannot be on at the same time.
VServerGroupId	String	No	rsp-cige6*****	The ID of the vServer group.
MasterSlaveServerGroupId	String	No	rsp-0bfuc*****	The ID of the primary/secondary server group.  Note You cannot specify the vServer group ID and primary/secondary server group ID at the same time.
MasterSlaveServerGroup	String	No	on	Specifies whether to use a primary/secondary server group. Valid values: on and off . The value of VserverGroup and the value of MasterSlaveServerGroup cannot be set to on at the same time.
AclId	String	No	off	The ID of the access control list (ACL) to which the listener is bound. This parameter is required when the AclStatus parameter is set to on .

Parameter	Type	Required	Example	Description
AclType	String	No	white	The type of the ACL. Valid values: white: specifies the ACL as the whitelist. Only requests from the IP addresses or CIDR blocks in the ACL are forwarded. Whitelists apply to scenarios that require you to allow only specific IP addresses to access an application. Risks may occur if the whitelist is improperly set. After the whitelist is enabled, only IP addresses in the whitelist can access the SLB listener. If the whitelist is enabled without IP addresses specified, the SLB listener does not forward requests. black: specifies the ACL as the blacklist. All requests from the IP addresses or CIDR blocks in the ACL are rejected. Blacklists apply to scenarios that require you to block access from specific IP addresses to an application. If the blacklist is enabled but the corresponding ACL does not contain IP addresses, the SLB listener forwards all requests.  Note This parameter takes effect when the AclStatus parameter is set to on.
AclStatus	String	No	off	Specifies whether to enable the access control feature. Valid values: on and off.
Description	String	No	test	The description of the listener.

Response parameters

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

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=SetLoadBalancerUDPListenerAttribute
&ListenerPort=80
&LoadBalancerId=lb-bp1rtfnodmywb43ecu4sf-c****
&<Common request parameters>
```

Sample success responses

XML format

```
<SetLoadBalancerUDPListenerAttributeResponse>
  <RequestId>A0F0643E-D653-4F6F-A67F-205B2A92BE18</RequestId>
</SetLoadBalancerUDPListenerAttributeResponse>
```

JSON format

```
{
  "RequestId": "A0F0643E-D653-4F6F-A67F-205B2A92BE18"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidParamLength.HealthCheckReq	The length of the parameter HealthCheckReq is invalid.	The error message returned because the value of HealthCheckReq is invalid in length.
400	InvalidParamLength.HealthCheckExp	The length of the parameter HealthCheckExp is invalid.	The error message returned because the value of HealthCheckReq is invalid in length.
400	VipNotSupportQuicVersion	The listener does not support the parameter of QuicVersion.	The error message returned because the listener does not support the QuicVersion parameter.

For a list of error codes, visit the [API Error Center](#).

7.3. DescribeLoadBalancerUDPListenerAttribute

Queries the configurations of a UDP listener.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeLoadBalancerUDPListenerAttribute	The operation that you want to perform. Set the value to DescribeLoadBalancerUDPListenerAttribute .
ListenerPort	Integer	Yes	80	The frontend port that is used by the Classic Load Balancer (CLB) instance. Valid values: 1 to 65535.
LoadBalancerId	String	Yes	lb-bp1rtfnodmywb43e****	The ID of the CLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the CLB instance is deployed.

Response parameters

Parameter	Type	Example	Description
ListenerPort	Integer	53	The frontend port that is used by the CLB instance.
BackendServerPort	Integer	90	The backend port that is used by the CLB instance.  Note If the listener is associated with a vServer group, this parameter is not returned.

Parameter	Type	Example	Description
Bandwidth	Integer	-1	The maximum bandwidth value of the listener. Unit: Mbit/s. Valid values: • -1: For a pay-by-data-transfer Internet-facing CLB instance, this value is set to -1. This indicates that the maximum bandwidth value is unlimited. • 1 to 5120: For a pay-by-bandwidth Internet-facing CLB instance, you can specify a maximum bandwidth value for each listener. The sum of maximum bandwidth values that you set for all listeners cannot exceed the maximum bandwidth value of the CLB instance.
Status	String	stopped	The status of the listener. Valid values: • running: The listener runs as expected. • stopped: The listener is stopped.
Scheduler	String	wrr	The scheduling algorithm. Valid values: • wrr (default): Backend servers with higher weights receive more requests than backend servers with lower weights. • rr: Requests are distributed to backend servers in sequence.
HealthCheck	String	on	Indicates whether health checks are enabled. Valid values: on and off. Default value: on.
HealthyThreshold	Integer	4	The number of consecutive health check successes before a backend server is declared as healthy. The number of health checks that an unhealthy backend server must consecutively pass before it can be declared healthy. In this case, the health check state is changed from fail to success. Valid values: 2 to 10.
UnhealthyThreshold	Integer	4	The number of consecutive health check failures before a backend server is declared unhealthy. The number of health checks that a healthy backend server must consecutively fail before it can be declared unhealthy. In this case, the health check state is changed from success to fail. Valid values: 2 to 10.

Parameter	Type	Example	Description
HealthCheckConnectTimeout	Integer	100	The timeout period of a health check response. If a backend Elastic Compute Service (ECS) instance does not send an expected response within the specified period of time, the ECS instance is considered unhealthy. Valid values: 1 to 300 . Unit: seconds.
HealthCheckConnectPort	Integer	8080	The port that is used for health checks. Valid values: 1 to 65535 . If this parameter is not set, the port specified by BackendServerPort is used for health checks. Note This parameter takes effect only if the HealthCheck parameter is set to on .
HealthCheckInterval	Integer	5	The interval between two consecutive health checks. Valid values: 1 to 50 . Unit: seconds.
VServerGroupId	String	rsp-cige6j****	The ID of the vServer group that is associated with the listener.
AclId	String	123943****	The ID of the access control list (ACL).
AclStatus	String	off	Indicates whether the access control feature is enabled. Valid values: on and off . Default value: off.

Parameter	Type	Example	Description
AclType	String	white	The type of ACL. Valid values: white: a whitelist. Only requests from the IP addresses or CIDR blocks in the ACL are forwarded. Whitelists apply to scenarios where you want to allow only specified IP addresses to access an application. Your business may be affected if the whitelist is not set properly. After a whitelist is configured, only IP addresses in the whitelist can access the CLB listener. If you enable a whitelist but the whitelist does not contain an IP address, the listener forwards all requests. black: a blacklist. All requests from the IP addresses or CIDR blocks in the ACL are blocked. A blacklist is suitable for scenarios in which you want to block access from specific IP addresses or CIDR blocks to an application. If you enable a blacklist but the blacklist does not contain an IP address, the CLB listener forwards all requests.
Description	String	test	The description of the listener.
HealthCheckExp	String	ok	The response string for the health checks of the UDP listener. The string must be 1 to 64 characters in length, and can contain letters and digits.
HealthCheckReq	String	hello	The request string for UDP listener health checks. The string must be 1 to 64 characters in length, and can contain letters and digits.
MasterSlaveServerGroupId	String	rsp-0bfucw****	The ID of the primary/secondary server group that is associated with the listener.
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeLoadBalancerUDPLListenerAttribute
&ListenerPort=80
&LoadBalancerId=lb-bp1rtfnodmywb43e*****
&<Common request parameters>
```

Sample success responses

XML **format**

```
<DescribeLoadBalancerUDPLListenerAttributeResponse>
  <Status>stopped</Status>
  <VServerGroupId>rsp-cige6j****</VServerGroupId>
  <ListenerPort>53</ListenerPort>
  <HealthCheckInterval>5</HealthCheckInterval>
  <Description>test</Description>
  <RequestId>365F4154-92F6-4AE4-92F8-7FF34B540710</RequestId>
  <UnhealthyThreshold>4</UnhealthyThreshold>
  <Scheduler>wrr</Scheduler>
  <AclId>123943****</AclId>
  <HealthCheckConnectTimeout>100</HealthCheckConnectTimeout>
  <HealthCheck>on</HealthCheck>
  <BackendServerPort>90</BackendServerPort>
  <HealthCheckReq>hello</HealthCheckReq>
  <HealthCheckConnectPort>8080</HealthCheckConnectPort>
  <AclStatus>off</AclStatus>
  <HealthyThreshold>4</HealthyThreshold>
  <HealthCheckExp>ok</HealthCheckExp>
  <Bandwidth>-1</Bandwidth>
  <MasterSlaveServerGroupId>rsp-0bfucw****</MasterSlaveServerGroupId>
  <AclType>white</AclType>
</DescribeLoadBalancerUDPLListenerAttributeResponse>
```

JSON **format**

```
{
  "Status": "stopped",
  "VServerGroupId": "rsp-cige6j****",
  "ListenerPort": 53,
  "HealthCheckInterval": 5,
  "Description": "test",
  "RequestId": "365F4154-92F6-4AE4-92F8-7FF34B540710",
  "UnhealthyThreshold": 4,
  "Scheduler": "wrr",
  "AclId": "123943****",
  "HealthCheckConnectTimeout": 100,
  "HealthCheck": "on",
  "BackendServerPort": 90,
  "HealthCheckReq": "hello",
  "HealthCheckConnectPort": 8080,
  "AclStatus": "off",
  "HealthyThreshold": 4,
  "HealthCheckExp": "ok",
  "Bandwidth": -1,
  "MasterSlaveServerGroupId": "rsp-0bfucw****",
  "AclType": "white"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

8. TCP listeners

8.1. CreateLoadBalancerTCPListener

Creates a TCP listener.

Note Newly created listeners are in the Stopped state. After a listener is created, you must call the `StartLoadBalancerListener` operation to start the listener to forward traffic.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateLoadBalancerTCPListener	The operation that you want to perform. Set the value to <code>CreateLoadBalancerTCPListener</code> .
Bandwidth	Integer	Yes	-1	The maximum bandwidth value of the listener. Valid values: -1 and 1 to 5120. -1: For a pay-by-data-transfer Internet-facing SLB instance, you can set the value to -1. This indicates that the bandwidth is unlimited. 1 to 5120: For a pay-by-bandwidth Internet-facing SLB instance, you can specify a bandwidth cap for each listener. The sum of maximum bandwidth values that you set for all listeners cannot exceed the maximum bandwidth value of the SLB instance.
ListenerPort	Integer	Yes	80	The frontend port that is used by the SLB instance. Valid values: 1 to 65535.
LoadBalancerId	String	Yes	lb-bp1b6c719dfa08e x****	The ID of the SLB instance.

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-hangzhou	The region where the SLB instance is created. You can query the most recent region list from the Regions and zones list or by calling the DescribeRegions operation.
BackendServerPort	Integer	No	80	The backend port that is used by the SLB instance. Valid values: 1 to 65535. If the VServerGroupId parameter is not set, this parameter is required.
Scheduler	String	No	wrr	The scheduling algorithm. Valid values: wrr (default): Backend servers that have higher weights receive more requests than those that have lower weights. rr: Requests are sequentially distributed to backend servers. sch: specifies consistent hashing that is based on source IP addresses. Requests from the same source IP address are distributed to the same backend server. tch: specifies consistent hashing that is based on four factors: source IP address, destination IP address, source port number, and destination port number. Requests that contain the same preceding information are distributed to the same backend server.  Note Only guaranteed-performance SLB instances support sch and tch. The consistent hashing (CH) algorithm is supported in the following regions: - Japan (Tokyo) - India (Mumbai) - Singapore Zone B and Singapore Zone C - Australia (Sydney) - Malaysia (Kuala Lumpur) - Indonesia (Jakarta)

Parameter	Type	Required	Example	Description
				- Germany (Frankfurt) - UK (London) - UAE (Dubai) - US (Silicon Valley) - US (Virginia) - Hongkong Zone B and Hongkong Zone C - Beijing Zone C, Beijing Zone D, Beijing Zone E, Beijing Zone F, Beijing Zone G, and Beijing Zone H. - Chengdu Zone A - Hangzhou Zone B, Hangzhou Zone C, Hangzhou Zone E, Hangzhou Zone F, Hangzhou Zone I, and Hangzhou Zone H - China (Hohhot) - Qingdao Zone B and Qingdao Zone C - Shanghai Zone B, Shanghai Zone D, Shanghai Zone E, Shanghai Zone F, Shanghai Zone G, Shanghai Zone H, and Shanghai Zone J. - Shenzhen Zone B, Shenzhen Zone C, Shenzhen Zone D, and Shenzhen Zone E. - Zhangjiakou Zone A and Zhangjiakou Zone B
PersistenceTimeout	Integer	No	0	The timeout period of session persistence. Valid values: 0 to 3600. Unit: seconds. Default value: 0. This indicates that session persistence is disabled.
EstablishedTimeout	Integer	No	500	The timeout period of connections. Valid values: 10 to 900. Unit: seconds.
HealthyThreshold	Integer	No	4	The number of consecutive successful health checks that must occur before an unhealthy backend server is declared healthy. In this case, the health check state is changed from fail to success. Valid values: 2 to 10.

Parameter	Type	Required	Example	Description
UnhealthyThreshold	Integer	No	4	The number of consecutive failed health checks that must occur before a healthy backend server is declared unhealthy. In this case, the health check state is changed from success to fail . Valid values: 2 to 10.
HealthCheckConnectTimeout	Integer	No	100	The timeout period of a health check. Valid values: 1 to 300. Unit: seconds. Default value: 5.
HealthCheckConnectPort	Integer	No	80	The port that is used for health checks. Valid values: 1 to 65535. If this parameter is not set, the port specified by BackendServerPort is used for health checks.
healthCheckInterval	Integer	No	3	The time interval between two consecutive health checks. Valid values: 1 to 50. Unit: seconds.
HealthCheckDomain	String	No	172.XX.XX.6	The domain name that is used for health checks. Valid values: \$_ip: The private IP address of the backend server. If the \$_ip parameter is set or the HealthCheckDomain parameter is not set, 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 contain only letters, digits, periods (.), and hyphens (-).

Parameter	Type	Required	Example	Description
HealthCheckURI	String	No	/test/index.html	The URI that is used for health checks. The URI must be 1 to 80 characters in length, and can contain letters, digits, hyphens (-), forward slashes (/), periods (.), percent signs (%), number signs (#), and ampersands (&). The URI must start with a forward slash (/) but cannot be a single forward slash (/). 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.
HealthCheckHttpCode	String	No	http_2xx,http_3xx	The HTTP status code that indicates a successful health check. Separate multiple HTTP status codes with commas (,). Valid values: • http_2xx(default value) • http_3xx • http_4xx • http_5xx
HealthCheckType	String	No	tcp	The type of health check. Valid values: • tcp(default value) • http
VServerGroupId	String	No	rsp-cige6j****	The ID of the vServer group.
MasterSlaveServerGroupID	String	No	rsp-0bfucw****	The ID of the primary/secondary server group.  Note You cannot specify the vServer group ID and primary/secondary server group ID at the same time.

Parameter	Type	Required	Example	Description
AclId	String	No	1323	The ID of the Access Control List (ACL) to which the listener is bound. This parameter is required when the AclStatus parameter is set to on.
AclType	String	No	black	The type of ACL. • white: specifies the ACL as a whitelist. Only requests from the IP addresses or CIDR blocks in the ACL are forwarded. Whitelists apply to scenarios where only specific IP addresses are allowed to access an application. Risks may occur if the whitelist is improperly set. After you set a whitelist for an SLB listener, only requests from IP addresses that are added to the whitelist are distributed by the listener. If the whitelist is enabled without IP addresses specified, the SLB listener does not forward requests. • black: specifies the ACL as a blacklist. All requests from the IP addresses or CIDR blocks in the ACL are rejected. Blacklists apply to scenarios that require you to block access from specific IP addresses to an application. If the blacklist is enabled but the corresponding ACL does not contain IP addresses, the SLB listener forwards all requests. This parameter takes effect if the AclStatus parameter is set to on.
AclStatus	String	No	off	Specifies whether to enable the access control feature. Valid values: • on • off (default value)

Parameter	Type	Required	Example	Description
Description	String	No	CreateListeners.	The description of the listener. The description must be 1 to 80 characters in length, and can contain letters, digits, hyphens (-), forward slashes (/), periods (.), and underscores (_). Chinese characters are supported.
ConnectionDrain	String	No	off	Specifies whether to enable connection draining. Valid values: • on: enables connection draining. • off: disables connection draining.
ConnectionDrainTimeout	Integer	No	300	The timeout period for the connection draining feature. If ConnectionDrain is set to on , this parameter is required. Value values: 10 to 900 . Unit: seconds.

Response parameters

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

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateLoadBalancerTCPListener
&Bandwidth=-1
&ListenerPort=80
&LoadBalancerId=lb-bp1b6c719dfa08ex***
&<Common request parameters>
```

Sample success responses

XML format

```
<CreateLoadBalancerTCPListenerResponse>
  <RequestId>CEF72CEB-54B6-4AE8-B225-F876FF7BA984</RequestId>
</CreateLoadBalancerTCPListenerResponse>
```

JSON format

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

Error codes

HttpCode	Error code	Error message	Description
400	Abs.VServerGroupIdAndMasterSlaveServerGroupId.MissMatch	The parameters VServerGroupId or MasterSlaveServerGroupId miss match.	The error message returned because the VServerGroupId parameter or the MasterSlaveServerGroupId parameter does not match.
400	LbNotSupportTcpsl	You cannot create a TCP SSL type listener for the specified load balancer.	The error message returned because the specified instance does not allow you to create tcpssl listeners.
400	LbSupportTcpslOnly	The specified load balancer supports TCP SSL type listener only.	The error message returned because the specified instance allows you to create only tcpssl listeners.
400	ListenerNotSupportRule	You cannot create a rule for the specified listener.	The error message returned because the specified listener does not allow you to create forwarding rules.

For a list of error codes, visit the [API Error Center](#).

8.2. SetLoadBalancerTCPLListenerAttribute

Modifies the configurations of a TCP listener.

Prerequisites

- A Classic Load Balancer (CLB) instance is created. For more information, see [CreateLoadBalancer](#).
- A TCP listener is created. For more information, see [CreateLoadBalancerTCPLListener](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	SetLoadBalancerTCPLListenerAttribute	The operation that you want to perform. Set the value to SetLoadBalancerTCPLListenerAttribute .

Parameter	Type	Required	Example	Description
ListenerPort	Integer	Yes	80	The frontend port that is used by the CLB instance. Valid values: 1 to 65535.
LoadBalancerId	String	Yes	lb-bp1ygod3yctvg1y****	The ID of the CLB instance.
RegionId	String	Yes	cn-hangzhou	The region ID of the CLB instance. You can query the region ID from the Regions and zones list or by calling the DescribeRegions operation.
Bandwidth	Integer	No	43	The maximum bandwidth of the listener. Unit: Mbit/s. Valid values: -1 and 1 to 5120. • -1: For a pay-by-data-transfer Internet-facing CLB instance, you can set this parameter to -1. In this case, the bandwidth of the listener is unlimited. • 1 to 5120: For a pay-by-bandwidth Internet-facing CLB instance, you can specify the bandwidth limit of each listener. The sum of bandwidth limit values that you set for all listeners cannot exceed the bandwidth limit of the CLB instance.

Parameter	Type	Required	Example	Description
Scheduler	String	No	wrr	The scheduling algorithm. Valid values: wrr: Backend servers that have higher weights receive more requests than backend servers that have lower weights. rr: Requests are distributed to backend servers in sequence. sch: specifies consistent hashing that is based on source IP addresses. Requests from the same source IP address are distributed to the same backend server. tch: specifies consistent hashing that is based on the following parameters: source IP address, destination IP address, source port, and destination port. Requests that contain the same preceding information are distributed to the same backend server.  Note - Only high-performance CLB instances support the sch and tch algorithms. - CLB does not support converting the wrr and rr algorithms to sch or tch. You cannot switch the hash algorithm from one to another.
PersistenceTimeout	Integer	No	0	The timeout period of session persistence. Unit: seconds. Valid values: 0 to 3600. The default value is 0, which specifies to disable session persistence.
EstablishedTimeout	Integer	No	500	The timeout period of connections. Unit: seconds. Valid values: 10 to 900.

Parameter	Type	Required	Example	Description
HealthyThreshold	Integer	No	4	The number of health checks that an unhealthy backend server must consecutively pass before it can be declared healthy. In this case, the health check state is changed from fail to success. Valid values: 2 to 10.
UnhealthyThreshold	Integer	No	4	The number of health checks that a healthy backend server must consecutively fail before it can be declared unhealthy. In this case, the health check state is changed from success to fail. Valid values: 2 to 10.
HealthCheckConnectTimeout	Integer	No	100	The timeout period of a health check response. If a backend Elastic Compute Service (ECS) instance does not send an expected response within the specified period of time, the ECS instance is considered unhealthy. Valid values: 1 to 300.  Note If the value of the HealthCheckConnectTimeout parameter is smaller than that of the HealthCheckInterval parameter, the timeout period specified by the HealthCheckConnectTimeout parameter is ignored and the period of time specified by the HealthCheckInterval parameter is used as the timeout period.

Parameter	Type	Required	Example	Description
HealthCheckConnectPort	Integer	No	8080	The port that is used for health checks. Valid values: 1 to 65535. If you do not set this parameter, the port specified by the BackendServerPort parameter is used.
HealthCheckInterval	Integer	No	5	The time interval between two consecutive health checks. Unit: seconds. Valid values: 1 to 50.
HealthCheckDomain	String	No	192.168.0.1	The domain name that is 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 a backend server. If an IP address is specified or the parameter is not set, the CLB instance uses the private IP address of the backend server as the domain name for health checks. • domain: The domain name must be 1 to 80 characters in length, and can contain letters, digits, periods (.), and hyphens (-).
HealthCheckURI	String	No	/test/index.html	The uniform resource identifier (URI) that is used for health checks. The URI must be 1 to 80 characters in length, and can contain letters, digits, hyphens (-), forward slashes (/), periods (.), percent signs (%), question marks (?), number signs (#), and ampersands (&). The URI must start with a forward slash (/) but cannot be a single forward slash (/). You can set this parameter to enable HTTP health checks for the TCP listener. If this parameter is not set, TCP health checks are performed.

Parameter	Type	Required	Example	Description
HealthCheckHttpCode	String	No	http_2xx	The HTTP status code that indicates a successful health check. Separate multiple HTTP status codes with commas (.). Valid values: http_2xx , http_3xx , http_4xx , and http_5xx .
HealthCheckType	String	No	tcp	The type of health checks. Valid values: tcp and http .
SynProxy	String	No	enable	Specifies whether to enable the SynProxy feature of CLB for protection. Valid values: enable: yes disable: no We recommend that you use the default value of this parameter.
VServerGroup	String	No	on	Specifies whether to use a vServer group. Valid values: on: yes off: no  Note You cannot set both VserverGroup and MasterSlaveServerGroup to on.
VServerGroupId	String	No	rsp-cige6j5****	The ID of the vServer group.
MasterSlaveServerGroupId	String	No	rsp-cige****	The ID of the primary/secondary server group.  Note You can set only one of the VServerGroupId and MasterSlaveServerGroupId parameters.

Parameter	Type	Required	Example	Description
MasterSlaveServerGroup	String	No	on	Specifies whether to use a primary/secondary server group. Valid values: • on: yes • off: no You cannot set both VserverGroup and MasterSlaveServerGroup to on.
AclId	String	No	12333	The ID of the access control list (ACL) to be associated with the listener. If AclStatus is set to on, this parameter is required.
AclType	String	No	white	The type of the ACL. Valid values: • white: a whitelist. Only requests from the IP addresses or CIDR blocks in the network ACL are forwarded. Whitelists apply to scenarios where you want to allow only specific IP addresses to access an application. Risks may arise if the whitelist is improperly set. After the whitelist is set, only requests from IP addresses that are added to the whitelist are forwarded by the listener. • black: a blacklist. All requests from the IP addresses or CIDR blocks in the ACL are rejected. Blacklists apply to scenarios where you want to block access from specified IP addresses to an application. If the whitelist does not contain IP addresses, the CLB listener forwards all requests. If no IP address is added to the blacklist, the listener forwards all requests.  Note If AclStatus is set to on, this parameter is required.
AclStatus	String	No	off	Specifies whether to enable the access control feature. Valid values: • on: yes • off: no

Parameter	Type	Required	Example	Description
Description	String	No	test	The description of the TCP listener. The description must be 1 to 80 characters in length, and can contain letters, digits, hyphens (-), forward slashes (/), periods (.), and underscores (_).
ConnectionDrain	String	No	off	Specifies whether to enable connection draining. Valid values: on: yes off: no
ConnectionDrainTimeout	Integer	No	300	The timeout period for connection draining. This parameter is required if ConnectionDrain is set to on . Unit: seconds. Valid values: 10 to 900 .

Response parameters

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

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=SetLoadBalancerTCPLListenerAttribute
&ListenerPort=80
&LoadBalancerId=lb-bplygod3yctvgly****
&<Common request parameters>
```

Sample success responses

XML format

```
<SetLoadBalancerTCPLListenerAttributeResponse>
  <RequestId>CEF72CEB-54B6-4AE8-B225-F876FF7BA984</RequestId>
</SetLoadBalancerTCPLListenerAttributeResponse>
```

JSON format

```
null
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidParameterValue.SpecNotSupport	The loadBalancer of shared spec does not support the parameter value, %s.	The error message returned because shared-resource CLB instances do not support the specified parameters.
400	InvalidParameterValue.RegionNotSupport	The region does not support the parameter value, %s.	The error message returned because the specified parameter value is not supported in the current region.
400	IpVersionConflict	The ip version of this LoadBalancer and the Acl is conflict.	The error message returned because the specified IP version is not supported by the ACL.
400	InvalidParameterValue.ZoneNotSupport	The zone does not support the parameter value, %s.	The error message returned because the specified parameter value is not supported in the current zone.
400	InvalidParameter.ZoneNotSupport	The zone does not support the parameter %s.	The error message returned because the specified parameter is not supported in the current zone.
400	OperationFailed.ServerGroupInUse	The VServerGroup or MasterSlaveServerGroup can not be close for this listener.	The error message returned because you cannot disable the server group for the listener.
400	InvalidParam.VServerGroupId	The specified VServerGroupId is invalid.	The error message returned because VServerGroupId is set to an invalid value. Check the usage notes and change the value accordingly.
400	MissingParam.HealthCheckConnectPort	The parameter HealthCheckConnectPort is required.	The error message returned because HealthCheckConnectPort is not set.
400	InvalidParam.ListenerPort	The specified ListenerPort is invalid.	The error message returned because ListenerPort is set to an invalid value. Check the usage notes and change the value accordingly.
400	InvalidParam.StartPort	The specified StartPort is invalid.	The error message returned because StartPort is set to an invalid value. Check the usage notes and change the value accordingly.
400	InvalidParamSize.PortRange	The size of param PortRange is invalid.	The error message returned because PortRange is set to an invalid value. Check the usage notes and change the value accordingly.

HttpCode	Error code	Error message	Description
400	InvalidParam.EndPort	The specified EndPort is invalid.	The error message returned because EndPort is set to an invalid value. Check the usage notes and change the value accordingly.
400	InvalidParam.PortRange	The specified PortRange is invalid.	The error message returned because PortRange is set to an invalid value. Check the usage notes and change the value accordingly.
400	QuotaLimitExceeds.AclAttachedToListener	%s.	The error message returned because the number of listeners associated with the ACL has reached the upper limit.
400	QuotaLimitExceeds.TotalAclEntry	%s.	The error message returned because the number of ACL rules has reached the upper limit.
400	AclListenerOverLimit	%s.	%s.
400	Duplicated.AclEntry	%s.	The error message returned because the specified ACL rule already exists.
400	ResourceNotFound.VServerGroup	%s.	The error message returned because the specified server group does not exist.
400	IllegalParam.FailoverStrategy	The parameter FailoverStrategy is illegal.	The error message returned because FailoverStrategy is set to an invalid value. Check the usage notes and change the value accordingly.
400	IllegalParam.FailoverThreshold	The parameter FailoverThreshold is illegal.	The error message returned because FailoverThreshold is set to an invalid value. Check the usage notes and change the value accordingly.
400	MasterSlaveServerConflict	The servers are conflict for MasterSlaveGroup.	The error message returned because the backend servers of the primary/secondary server group conflict.
400	MissingParam.VServerGroupId	The parameter VServerGroupId is missing.	The error message returned because VServerGroupId is not set.

HttpCode	Error code	Error message	Description
400	OperationDenied.HealthCheckClosedForMasterSlaveMode	The operation is denied because of HealthCheckClosedForMasterSlaveMode.	The error message returned because health checks must be enabled in primary/secondary mode.
400	InvalidParam.HealthCheck	The param of HealthCheck is illegal.	The error message returned because HealthCheck is set to an invalid value. Check the usage notes and change the value accordingly.
400	OperationDenied.MasterSlaveGroupLogEnabled	The operation is denied because of MasterSlaveGroupLogEnabled.	The error message returned because the log feature is enabled for the primary/secondary server group and the operation is rejected.
400	OperationDenied.NotSupportAcl	The operation is denied because The single Tunnel or any Tunnel loadbalancer does not support config AccessControlList.	The error message returned because Single Tunnel and Any Tunnel CLB instances do not support the ACL.
400	OperationDenied.FullNatModeNotAllowed	The operation is not allowed because of FullNatModeNotAllowed.	The error message returned because the full NAT mode is not supported.
400	OperationDenied.OnlyIpv4SlbSupport	The operation is not allowed because of OnlyIpv4SlbSupport.	The error message returned because only IPv4 instances support the full NAT mode.
400	SpecNotSupportParameter	The instance with share spec does not support FullNatEnabled parameter.	The error message returned because shared-resource instances do not support the FullNatEnabled parameter.

For a list of error codes, visit the [API Error Center](#).

8.3. DescribeLoadBalancerTCPListenerAttribute

Queries the configurations of a TCP listener.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeLoadBalancerTCPListenerAttribute	The operation that you want to perform. Set the value to DescribeLoadBalancerTCPListenerAttribute .
ListenerPort	Integer	Yes	80	The frontend port that is used by the Server Load Balancer (SLB) instance. Valid values: 1 to 65535.
LoadBalancerId	String	Yes	lb-bp1ygod3yctvg1y*****	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the Server Load Balancer (SLB) instance is deployed. You can retrieve the region ID from the Regions and zones list or by calling the DescribeRegions operation.

Response parameters

Parameter	Type	Example	Description
ListenerPort	Integer	110	The frontend port that is used by the SLB instance.
BackendServerPort	Integer	443	The backend port that is used by the SLB instance.  Note If the SLB instance uses a vServer group, this parameter is not displayed.

Parameter	Type	Example	Description
Bandwidth	Integer	-1	The maximum bandwidth value of the listener. Unit: Mbit/s. Valid values: • -1: For a pay-by-data-transfer Internet-facing SLB instance, you can set the value to -1. This indicates that the maximum bandwidth value is unlimited. • 1 to 5120: For a pay-by-bandwidth Internet-facing SLB instance, you can specify a bandwidth cap for each listener. The sum of maximum bandwidth values that you set for all listeners cannot exceed the maximum bandwidth value of the SLB instance.
Status	String	stopped	The state of the listener. Valid values: • running: indicates that the listener runs as expected. • stopped: indicates that the listener is stopped.
SynProxy	String	enable	Indicates whether the protection feature SynProxy of SLB is enabled. We recommend that you use the default value of this parameter. Valid values: • Enable: SynProxy is enabled. • Disable: SynProxy is disabled.
Scheduler	String	wrr	The scheduling algorithm. Valid values: • wrr (default): Backend servers with higher weights receive more requests than those with lower weights. • rr: Requests are distributed to backend servers in sequence.
PersistenceTimeout	Integer	0	The timeout period of session persistence. Valid values: 0 to 3600. Unit: seconds. Default value: 0. This indicates that session persistence is disabled.
HealthCheckType	String	tcp	The health check method that is used by the TCP listener. Valid values: tcp and http.

Parameter	Type	Example	Description
HealthCheck	String	on	Indicates whether health checks are enabled. Valid values: on and off .
HealthyThreshold	Integer	4	The healthy threshold. Indicates the number of times that an unhealthy backend server must consecutively pass health checks before it is declared healthy (from fail to success). Valid values: 2 to 10.
UnhealthyThreshold	Integer	4	The unhealthy threshold. Indicates the number of times that a healthy backend server must consecutively fail health checks before it is declared unhealthy (from success to fail). Valid values: 2 to 10.
HealthCheckConnectPort	Integer	8080	The port that is used for health checks. Valid values: 1 to 65535. If this parameter is not set, the port specified by BackendServerPort is used for health checks.
HealthCheckInterval	Integer	5	The time interval between two consecutive health checks. Valid values: 1 to 50. Unit: seconds.
HealthCheckDomain	String	www.domain.com	The domain name that is used for health checks. Valid values: \$_ip: The private IP address of the backend server. If the \$_ip parameter is set or the HealthCheckDomain parameter is not set, 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. It can contain only letters, digits, periods (.), and hyphens (-).
HealthCheckURI	String	/test/index.html	The URL that is used for health checks. The value must be 1 to 80 characters in length, and can contain letters, digits, hyphens (-), forward slashes (/), periods (.), percent signs (%), question marks (?), number signs (#), and ampersands (&). The URL must not be a single forward slash (/) but it must start with a forward slash (/).

Parameter	Type	Example	Description
HealthCheckHttpCode	String	http_2xx	The HTTP status code that indicates the health check is successful.
VServerGroupId	String	rsp-cige6*****8	The ID of the associated server group.
AclId	String	12	The ID of the access control list (ACL) to which the listener is bound. This parameter is required if the AclStatus parameter is set to on.
AclStatus	String	off	Indicates whether access control is enabled for the listener. Valid values: on and off. Default value: off.
AclType	String	white	The type of the ACL. Valid values: • white: specifies the ACL as a whitelist. Only requests from the IP addresses or CIDR blocks in the ACL are forwarded. Whitelists apply to scenarios that require you to allow only specific IP addresses to access an application. Risks may occur if the whitelist is improperly set. After you set a whitelist for an SLB listener, only requests from IP addresses that are added to the whitelist are distributed by the listener. After a whitelist is enabled for a listener, if no IP address is added to the whitelist, the listener does not distribute requests. • black: All requests from the IP addresses or CIDR blocks in the ACL are denied. The blacklist is used to prevent specified IP addresses from accessing an application. If the blacklist is enabled but the corresponding ACL does not contain IP addresses, the SLB listener forwards all requests. This parameter is required if the AclStatus parameter is set to on.

Parameter	Type	Example	Description
ConnectionDrain	String	off	Indicates whether connection draining is enabled. If ConnectionDrain is set to on , the value is returned. Valid values: on: enabled off: disabled
ConnectionDrainTimeout	Integer	300	The timeout period for the connection draining feature. If ConnectionDrain is set to on , the value is returned. Value values: 10 to 900. Unit: seconds.
Description	String	TCP listeners	The description of the listener.
EstablishedTimeout	Integer	500	The timeout period of connections.
HealthCheckConnectTimeout	Integer	100	The timeout period.
HealthCheckMethod	String	tcp	The health check method.
MasterSlaveServerGroupId	String	rsp-0bfucw*****	The ID of the primary/secondary server group that is associated with the listener.
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeLoadBalancerTCPListenerAttribute
&ListenerPort=80
&LoadBalancerId=lb-bplygod3yctvgly*****
&<Common request parameters>
```

Sample success responses

`XML` `format`

```
<?xml version="1.0" encoding="UTF-8"?>
<DescribeLoadBalancerTCPListenerAttributeResponse>
  rGroupId>rsp-cige6*****8</VServerGroupId>
  <Description>TCP listeners</Description>
  <SynProxy>enable</SynProxy>
  <UnhealthyThreshold>4</UnhealthyThreshold>
  <HealthCheckURI>/test/index.html</HealthCheckURI>
  <Scheduler>wrr</Scheduler>
  <HealthCheck>on</HealthCheck>
  <BackendServerPort>443</BackendServerPort>
  <PersistenceTimeout>0</PersistenceTimeout>
  <HealthCheckConnectPort>8080</HealthCheckConnectPort>
  <HealthCheckMethod>tcp</HealthCheckMethod>
  <Bandwidth>-1</Bandwidth>
  <HealthCheckHttpCode>http_2xx</HealthCheckHttpCode>
  <EstablishedTimeout>500</EstablishedTimeout>
  <Status>stopped</Status>
  <ListenerPort>110</ListenerPort>
  <HealthCheckInterval>5</HealthCheckInterval>
  <RequestId>365F4154-92F6-4AE4-92F8-7FF34B540710</RequestId>
  <AclId>12</AclId>
  <HealthCheckConnectTimeout>100</HealthCheckConnectTimeout>
  <AclStatus>off</AclStatus>
  <HealthyThreshold>4</HealthyThreshold>
  <MasterSlaveServerGroupId>rsp-0bfucw*****</MasterSlaveServerGroupId>
  <HealthCheckDomain>www.domain.com</HealthCheckDomain>
  <AclType>white</AclType>
  <HealthCheckType>tcp</HealthCheckType>
</DescribeLoadBalancerTCPListenerAttributeResponse>
```

JSON **format**

```
{ "VServerGroupId": "rsp-cige6*****8",
  "Description": "TCP listeners",
  "SynProxy": "enable",
  "UnhealthyThreshold": "4",
  "HealthCheckURI": "/test/index.html",
  "Scheduler": "wrr",
  "HealthCheck": "on",
  "BackendServerPort": "443",
  "PersistenceTimeout": "0",
  "HealthCheckConnectPort": "8080",
  "HealthCheckMethod": "tcp",
  "Bandwidth": "-1",
  "HealthCheckHttpCode": "http_2xx",
  "EstablishedTimeout": "500",
  "Status": "stopped",
  "ListenerPort": "110",
  "HealthCheckInterval": "5",
  "RequestId": "365F4154-92F6-4AE4-92F8-7FF34B540710",
  "AclId": "12",
  "HealthCheckConnectTimeout": "100",
  "AclStatus": "off",
  "HealthyThreshold": "4",
  "MasterSlaveServerGroupId": "rsp-0bfucw*****",
  "HealthCheckDomain": "www.domain.com",
  "AclType": "white",
  "HealthCheckType": "tcp" }
```

Error codes

For a list of error codes, visit the [API Error Center](#).

9.HTTP listeners

9.1. CreateLoadBalancerHTTPListener

Creates an HTTP listener.

Usage notes

A newly created listener is in the **stopped** state. After a listener is created, you can call the [StartLoadBalancerListener](#) operation to start the listener. After the listener is started, the listener can forward traffic to backend servers.

Prerequisites

A Classic Load Balancer (CLB) instance is created. For more information, see [CreateLoadBalancer](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateLoadBalancerHTTPListener	The operation that you want to perform. Set the value to CreateLoadBalancerHTTPListener .
HealthCheck	String	Yes	on	Specifies whether to enable health checks. Valid values: on: enables health checks. off: disables health checks.
ListenerPort	Integer	Yes	80	The frontend port that is used by the CLB instance. Valid values: 1 to 65535 .
LoadBalancerId	String	Yes	lb-bp1c9vixxjh92q83tw****	The ID of the CLB instance.
StickySession	String	Yes	off	Specifies whether to enable session persistence. Valid values: on: yes off (default): no

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-hangzhou	The ID of the region where the CLB instance is deployed. You can query the region ID from the Regions and zones list or by calling the DescribeRegions operation.
Bandwidth	Integer	No	-1	The maximum bandwidth of the listener. Unit: Mbit/s. Valid values: • -1: specifies that the maximum bandwidth is unlimited. • 1 to 5120: The sum of bandwidth values that you specify for all listeners of the CLB instance cannot exceed the maximum bandwidth of the CLB instance.  Note This parameter is available only in mainland China.
BackendServerPort	Integer	No	80	The backend port that is used by the CLB instance. Valid values: 1 to 65535.  Note If the VServerGroupId parameter is not set, this parameter is required.
XForwardedFor	String	No	on	Specifies whether to use the <code>X-Forwarded-For</code> header to preserve the real IP address of the client. Valid values: • on (default): yes • off: no
Scheduler	String	No	wrr	The scheduling algorithm. Valid values: • wrr (default): Backend servers with higher weights receive more requests than backend servers with lower weights. • rr: Requests are distributed to backend servers in sequence.

Parameter	Type	Required	Example	Description
StickySessionType	String	No	insert	The method that is used to handle a cookie. Valid values: insert: inserts a cookie. CLB inserts a cookie (SERVERID) into the first HTTP or HTTPS response that is sent to a client. The next request from the client will contain this cookie, and the listener will forward this request to the recorded backend server. server: rewrites a cookie. When CLB detects a user-defined cookie, it overwrites the original cookie with the user-defined cookie. The next request from the client will contain the user-defined cookie, and the listener will distribute the request to the recorded backend server.  Note This parameter is required if the <code>StickySession</code> parameter is set to <code>on</code>.
CookieTimeout	Integer	No	500	The timeout period of the cookie. Unit: seconds. Valid values: 1 to 86400.  Note If <code>StickySession</code> is set to <code>on</code> and <code>StickySessionType</code> is set to <code>insert</code>, this parameter is required.
Cookie	String	No	B490B5EBF6F3CD402E515D22BCDA1598	The cookie that is configured on the backend server. The cookie must be 1 to 200 characters in length, and can contain only ASCII characters and digits. It cannot contain commas (,), semicolons (;), or spaces. It cannot start with a dollar sign (\$).  Note If <code>StickySession</code> is set to <code>on</code> and <code>StickySessionType</code> is set to <code>insert</code>, this parameter is required.

Parameter	Type	Required	Example	Description
HealthCheckMethod	String	No	get	The health check method used in HTTP health checks. Valid values: head and get.  Note This parameter takes effect only if the HealthCheck parameter is set to on.
HealthCheckDomain	String	No	172.16.0.0/12	The domain name that is used for health checks. Valid values: • \$_ip: the private IP address of a backend server. If you do not set this parameter or set the parameter to \$_ip, the CLB instance uses the private IP address of each backend server as the domain name for health checks. • domain: The domain name must be 1 to 80 characters in length, and can contain letters, digits, periods (.), and hyphens (-).  Note This parameter takes effect only when the HealthCheck parameter is set to on.
HealthCheckURI	String	No	/test/index.html	The uniform resource identifier (URI) that is used for health checks. The URI must be 1 to 80 characters in length, and can contain letters, digits, hyphens (-), forward slashes (/), periods (.), percent signs (%), question marks (?), number signs (#), and ampersands (&). The URI start with a forward slash (/) but cannot be a single forward slash (/).  Note This parameter takes effect only if the HealthCheck parameter is set to on.

Parameter	Type	Required	Example	Description
HealthyThreshold	Integer	No	4	The number of health checks that an unhealthy backend server must consecutively pass before it can be declared healthy. In this case, the health check state is changed from fail to success. Valid values: 2 to 10.  Note This parameter takes effect only if the HealthCheck parameter is set to on.
UnhealthyThreshold	Integer	No	4	The number of health checks that a healthy backend server must consecutively fail before it can be declared unhealthy. In this case, the health check state is changed from success to fail. Valid values: 2 to 10.  Note This parameter takes effect only if the HealthCheck parameter is set to on.

Parameter	Type	Required	Example	Description
HealthCheckTimeout	Integer	No	3	The timeout period of a health check response. If a backend Elastic Compute Service (ECS) instance does not send an expected response within the specified period of time, the ECS instance is considered unhealthy. Unit: seconds. Valid values: 1 to 300.  Note - If the value of the HealthCheckTimeout parameter is smaller than that of the HealthCheckInterval parameter, the timeout period specified by the HealthCheckTimeout parameter is invalid and the value of the HealthCheckInterval parameter is used as the timeout period. - This parameter takes effect only if the HealthCheck parameter is set to on.
HealthCheckConnectPort	Integer	No	80	The backend port that is used for health checks. Valid values: 1 to 65535.  Note This parameter takes effect only if the HealthCheck parameter is set to on.

Parameter	Type	Required	Example	Description
HealthCheckInterval	Integer	No	5	The time interval between two consecutive health checks. Unit: seconds. Valid values: 1 to 50.  Note This parameter takes effect only if the HealthCheck parameter is set to on.
HealthCheckHttpCode	String	No	http_2xx	The HTTP status code that indicates a successful health check. Separate HTTP status codes with commas (,). Valid values: http_2xx, http_3xx, http_4xx, and http_5xx. Default value: http_2xx.  Note This parameter takes effect only if the HealthCheck parameter is set to on.
VServerGroupId	String	No	rsp-cige6j*****	The ID of the vServer group.
XForwardedFor_SLBIP	String	No	on	Specifies whether to use the SLB-IP header to obtain the virtual IP address (VIP) requested by the client. Valid values: on: yes off (default): no
XForwardedFor_SLBID	String	No	on	Indicates whether the SLB-ID header is used to obtain the ID of the CLB instance. Valid values: on: yes off (default): no
XForwardedFor_protocol	String	No	on	Specifies whether to use the X-Forwarded-Proto header to retrieve the listener protocol. Valid values: on: yes off (default): no

Parameter	Type	Required	Example	Description
Gzip	String	No	on	Specifies whether to enable <code>Gzip</code> compression to compress specific types of files. Valid values: • on (default): yes • off: no
AclId	String	No	123	The ID of the access control list (ACL) to be associated with the listener.  Note If <code>AclStatus</code> is set to on, this parameter is required.

Parameter	Type	Required	Example	Description
AclType	String	No	white	The type of the ACL. Valid values: white: a whitelist. Only requests from the IP addresses or CIDR blocks in the network ACL are forwarded. Whitelists apply to scenarios where you want to allow only specific IP addresses to access an application. Risks may arise if the whitelist is improperly set. After a whitelist is configured, only IP addresses in the whitelist can access the CLB listener. - If no IP address is added to the whitelist, the CLB listener forwards all requests. black: a blacklist. All requests from the IP addresses or CIDR blocks in the network ACL are denied. Blacklists apply to scenarios where you want to deny access from specified IP addresses to an application. - If you enable a blacklist but the blacklist does not contain an IP address, the CLB listener forwards all requests.  Note If AclStatus is set to on, this parameter is required.
AclStatus	String	No	off	Specifies whether to enable the access control feature. Valid values: on: yes off (default): no

Parameter	Type	Required	Example	Description
Description	String	No	Listener1	The description of the listener. The description must be 1 to 80 characters in length, and can contain letters, digits, hyphens (-), forward slashes (/), periods (.), and underscores (_).
ListenerForward	String	No	off	Specifies whether to enable HTTP-to-HTTPS redirection. Valid values: on: yes off (default): no
ForwardPort	Integer	No	443	The listener port that is used to redirect HTTP requests to HTTPS requests.
IdleTimeout	Integer	No	3	The timeout period of an idle connection. Unit: seconds. Default value: 15. Valid values: 1 to 60. If no request is received within the specified timeout period, CLB closes the connection. When another request is received, CLB establishes a new connection.
RequestTimeout	Integer	No	6	The timeout period of a request. Unit: seconds. Default value: 60. Valid values: 1 to 180. If no response is received from the backend server within the specified timeout period, CLB sends an <code>HTTP 504</code> error code to the client.

Response parameters

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

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateLoadBalancerHTTPListener
&HealthCheck=on
&ListenerPort=80
&LoadBalancerId=lb-bp1c9vixxjh92q83tw*****
&StickySession=off
&<Common request parameters>
```

Sample success responses

XML format

```
<CreateLoadBalancerHTTPListenerResponse>
d>CEF72CEB-54B6-4AE8-B225-F876FF7BA984</RequestId>
</CreateLoadBalancerHTTPListenerResponse>
```

JSON format

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

Error codes

HttpCode	Error code	Error message	Description
400	LbNotSupportTcpsl	You cannot create a TCP SSL type listener for the specified load balancer.	The error message returned because the specified CLB instance does not support TCP listeners.
400	LbSupportTcpslOnly	The specified load balancer supports TCP SSL type listener only.	The error message returned because the specified instance allows you to create only TCP listeners.
400	ListenerNotSupportRule	You cannot create a rule for the specified listener.	The error message returned because the specified listener does not allow you to create forwarding rules.
400	Mismatch.SlbSpecTypeAndListenerProtocol	The SlbSpecType and ListenerProtocol are mismatched.	The error message returned because the specified instance type and listener type do not match.

For a list of error codes, visit the [API Error Center](#).

9.2. SetLoadBalancerHTTPListenerAttribute

Modifies the configurations of an HTTP listener.

Prerequisites

- A Classic Load Balancer (CLB) instance is created. For more information, see [CreateLoadBalancer](#).
- An HTTP listener is created. For more information about how to create an HTTP listener, see [CreateLoadBalancerHTTPListener](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	SetLoadBalancerHTTPListenerAttribute	The operation that you want to perform. Set the value to SetLoadBalancerHTTPListenerAttribute .
ListenerPort	Integer	Yes	80	The frontend port that is used by the CLB instance. Valid values: 1 to 65535.
LoadBalancerId	String	Yes	lb-bp1qjwo61pqz3ah****	The ID of the CLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the CLB instance is deployed. You can query the region ID from the Regions and zones list or by calling the DescribeRegions operation.
Bandwidth	Integer	No	-1	The maximum bandwidth of the listener. Unit: Mbit/s. Valid values: -1: For a pay-by-data-transfer Internet-facing CLB instance, you can set this parameter to -1. In this case, the bandwidth of the listener is unlimited.
XForwardedFor	String	No	on	Specifies whether to use the <code>X-Forwarded-For</code> header to preserve the real IP address of the client. Valid values: on (default): yes off: no

Parameter	Type	Required	Example	Description
Scheduler	String	No	wrr	The scheduling algorithm. Valid values: wrr: Backend servers that have higher weights receive more requests than backend servers that have lower weights. rr: Requests are distributed to backend servers in sequence.
StickySession	String	No	on	Specifies whether to enable session persistence. Valid values: on: yes off: no
StickySessionType	String	No	insert	The method that is used to handle a cookie. Valid values: insert: inserts a cookie. CLB inserts a cookie (SERVERID) into the first HTTP or HTTPS response packet that is sent to a client. The next request from the client will contain this cookie, and the listener will distribute this request to the recorded backend server. server: rewrites a cookie. When CLB detects a user-defined cookie, it overwrites the original cookie with the user-defined cookie. The next request from the client will contain the user-defined cookie, and the listener will distribute this request to the recorded backend server.  Note This parameter is required if the StickySession parameter is set to on.
CookieTimeout	Integer	No	500	The timeout period of the cookie. Unit: seconds. Valid values: 1 to 86400.  Note If StickySession is set to on and StickySessionType is set to insert, this parameter is required.

Parameter	Type	Required	Example	Description
Cookie	String	No	B490B5EBF6F3CD4 02E515D22BCDA** **	The cookie that is configured on the server. The cookie must be 1 to 200 characters in length, and can contain ASCII characters and digits. It cannot contain commas (,), semicolons (;), or spaces. It cannot start with a dollar sign (\$).  Note This parameter is required if the StickySession parameter is set to on and the StickySessionType parameter is set to server.
HealthCheck	String	No	on	Specifies whether to enable health checks. Valid values: • on: yes • off: no
HealthCheckMethod	String	No	get	The health check method used in HTTP health checks. Valid values: head and get.  Note This parameter takes effect only if the HealthCheck parameter is set to on.
HealthCheckDomain	String	No	172.XX.XX.16	The domain name that is used for health checks. Valid values: • \$_ip: the private IP address of a backend server. If HealthCheckDomain is set to \$_ip or is not set, CLB uses the private IP address of each backend server as the domain name for health checks. • domain: The domain name must be 1 to 80 characters in length, and can contain letters, digits, periods (.), and hyphens (-).  Note This parameter takes effect only if the HealthCheck parameter is set to on.

Parameter	Type	Required	Example	Description
HealthCheckURI	String	No	/test/index.html	The uniform resource identifier (URI) that is used for health checks. The URI must be 1 to 80 characters in length, and can contain letters, digits, and the following characters: - / . % ? # & The URI must start with a forward slash (/) but cannot be a single forward slash (/).  Note This parameter takes effect only if the HealthCheck parameter is set to on.
HealthyThreshold	Integer	No	4	The number of health checks that an unhealthy backend server must consecutively pass before it can be declared healthy (from fail to success). Valid values: 2 to 10.  Note This parameter takes effect only when the HealthCheck parameter is set to on.
UnhealthyThreshold	Integer	No	4	The number of consecutive health check failures before a backend server is declared unhealthy (from success to fail). Valid values: 2 to 10.  Note This parameter takes effect only if the HealthCheck parameter is set to on.

Parameter	Type	Required	Example	Description
HealthCheckTimeout	Integer	No	3	The timeout period of a health check response. If a backend Elastic Compute Service (ECS) instance does not send an expected response within the specified period of time, the ECS instance is considered unhealthy. This parameter takes effect only when the HealthCheck parameter is set to on. Valid values: 1 to 300. Unit: seconds.  Note If the value of the HealthCheckTimeout parameter is smaller than that of the HealthCheckInterval parameter, the timeout period specified by the HealthCheckTimeout parameter is ignored and the period of time specified by the HealthCheckInterval parameter is used as the timeout period.
HealthCheckInterval	Integer	No	5	The time interval between two consecutive health checks. Valid values: 1 to 50. Unit: seconds.  Note This parameter takes effect only when the HealthCheck parameter is set to on.
HealthCheckConnectPort	Integer	No	8080	The port that is used for health checks. Valid values: 1 to 65535.  Note This parameter takes effect only if the HealthCheck parameter is set to on.

Parameter	Type	Required	Example	Description
HealthCheckHttpCode	String	No	http_2xx,http_3xx	The HTTP status code that indicates a successful health check. Separate HTTP status codes with commas (,). Valid values: http_2xx, http_3xx, http_4xx, and http_5xx.  Note This parameter takes effect only when the HealthCheck parameter is set to on.
VServerGroup	String	No	on	Specifies whether to use a vServer group. Valid values: • on: yes • off: no
VServerGroupId	String	No	rsp-cige6j*****	The ID of the vServer group.
XForwardedFor_SLBIP	String	No	on	Indicates whether to use the SLB-IP header to retrieve the virtual IP address (VIP) requested by the client. Valid values: • on: yes • off: no
XForwardedFor_SLBID	String	No	on	Specifies whether to use the SLB-ID header to retrieve the ID of the CLB instance. Valid values: • on: yes • off: no
XForwardedFor_protocol	String	No	on	Specifies whether to use the X-Forwarded-Proto header to retrieve the listener protocol. Valid values: • on: yes • off: no
Gzip	String	No	on	Specifies whether to enable Gzip compression to compress specific types of files. Valid values: • on: yes • off: no

Parameter	Type	Required	Example	Description
AclId	String	No	123	The ID of the access control list (ACL) to be associated with the listener.  Note If <code>AclStatus</code> is set to <code>on</code>, this parameter is required.
AclType	String	No	white	The type of the ACL. Valid values: white: a whitelist. Only requests from the IP addresses or CIDR blocks in the network ACL are forwarded. Whitelists apply to scenarios where you want to allow only specific IP addresses to access an application. Risks may arise if the whitelist is improperly set. After the whitelist is set, only requests from IP addresses that are added to the whitelist are forwarded by the listener. If the whitelist does not contain IP addresses, the CLB listener forwards all requests. black: a blacklist. All requests from the IP addresses or CIDR blocks in the ACL are rejected. Blacklists apply to scenarios where you want to block access from specified IP addresses to an application. If no IP address is added to the blacklist, the listener forwards all requests.  Note If <code>AclStatus</code> is set to <code>on</code>, this parameter is required.
AclStatus	String	No	off	Specifies whether to enable the access control feature. Valid values: on: yes off: no

Parameter	Type	Required	Example	Description
IdleTimeout	Integer	No	12	The timeout period of an idle connection. Unit: seconds. Valid values: 1 to 60. Default value: 15. If no request is received within the specified timeout period, CLB closes the connection. When another request is received, CLB establishes a new connection.
RequestTimeout	Integer	No	3	The timeout period of a request. Unit: seconds. Valid values: 1 to 180. Default value: 60. If no response is received from the backend server within the request timeout period, CLB returns an HTTP 504 error code to the client.
Description	String	No	test	The description of the listener.

Response parameters

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

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=SetLoadBalancerHTTPListenerAttribute
&ListenerPort=80
&LoadBalancerId=lb-bp1qjwo6lpqz3ah*****
&<Common request parameters>
```

Sample success responses

XML format

```
<SetLoadBalancerHTTPListenerAttributeResponse>
  <RequestId>CEF72CEB-54B6-4AE8-B225-F876FF7BA984</RequestId>
</SetLoadBalancerHTTPListenerAttributeResponse>
```

JSON format

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

Error codes

For a list of error codes, visit the [API Error Center](#).

9.3.

DescribeLoadBalancerHTTPListenerAttribute

Queries the configurations of an HTTP listener.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeLoadBalancerHTTPListenerAttribute	The operation that you want to perform. Set the value to DescribeLoadBalancerHTTPListenerAttribute .
ListenerPort	Integer	Yes	80	The frontend port that is used by the Server Load Balancer (SLB) instance. Valid values: 1 to 65535.
LoadBalancerId	String	Yes	lb-bp1o94dp5***** **	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the Server Load Balancer (SLB) instance is deployed. You can query the most recent region list from the Regions and zones list or by calling the DescribeRegions operation.

Response parameters

Parameter	Type	Example	Description
ListenerPort	Integer	80	The frontend port that is used by the SLB instance.

Parameter	Type	Example	Description
Bandwidth	Integer	-1	Specify the maximum bandwidth value of the listener. • -1: If you set the value to -1, this indicates that the maximum bandwidth value of the listener is unlimited. • 1 to 5120: If you set the value to a number from 1 to 5120, the value that you specify indicates the maximum bandwidth value of the listener. The sum of maximum bandwidth values of all listeners cannot exceed the maximum bandwidth value of the SLB instance.
Status	String	stopped	The state of the listener. Valid values: running and stopped. • running: The listener runs as expected. • stopped: The listener is stopped.
XForwardedFor	String	on	Indicates whether the X-Forwarded-For header is added to obtain the real IP address of the client. Valid values: on and off.
Scheduler	String	wrr	The scheduling algorithm. Valid values: wrr and rr. • wrr (default): Backend servers that have higher weights receive more requests than those that have lower weights. • rr: Requests are distributed to each backend server in sequence.
StickySession	String	on	Indicates whether session persistence is enabled. Default value: on. Valid values: on and off.

Parameter	Type	Example	Description
StickySessionType	String	insert	The method that is used to handle a cookie. Valid values: insert and server. insert: inserts a cookie. SLB inserts a cookie (SERVERID) into the first HTTP or HTTPS response packet that is sent to a client. The next request from the client contains this cookie and the listener distributes this request to the recorded backend server. server: rewrites a cookie. When SLB detects a user-defined cookie, it overwrites the original cookie with the user-defined cookie. The next request from the client will contain the user-defined cookie, and the listener will distribute the request to the recorded backend server.  Note If you set the StickySession parameter to on, this parameter is required.
CookieTimeout	Integer	500	The timeout period of the cookie.
Cookie	String	B490B5EBF6F3CD402E515D22BCDA1598	The cookie to be configured on the backend server.
HealthCheck	String	on	Indicates whether health checks are enabled. Valid values: on and off.
HealthCheckDomain	String	www.domain.com	The domain name that is used for health checks.
HealthCheckURI	String	/test/index.html	The URI that is used for health checks. The value must be 1 to 80 characters in length, and can contain letters, digits, hyphens (-), forward slashes (/), periods (.), percent signs (%), question marks (?), number signs (#), and ampersands (&). The URI must not be a single forward slash (/) but it must start with a forward slash (/).
HealthyThreshold	Integer	4	The healthy threshold.

Parameter	Type	Example	Description
UnhealthyThreshold	Integer	4	The unhealthy threshold.
HealthCheckTimeout	Integer	3	The timeout period of each health check response. Unit: seconds.
HealthCheckInterval	Integer	5	The interval between two consecutive health checks. Unit: seconds.
HealthCheckHttpCode	String	http_2xx,http_3xx	The HTTP status code that indicates a successful health check.
HealthCheckConnectPort	Integer	8080	The port that is used for health checks.  Note This parameter takes effect only if the HealthCheck parameter is set to on.
VServerGroupId	String	rsp-cige6j****	The ID of the associated server group.
Gzip	String	on	Indicates whether gzip compression is enabled to compress files of a specific type. Valid values: on and off.
AclId	String	on	The ID of the access control list (ACL) to which the listener is bound. This parameter is required if the AclStatus parameter is set to on.
AclStatus	String	off	Indicates whether access control is enabled. Valid values: on and off. Default value: off.

Parameter	Type	Example	Description
AclType	String	white	The type of the ACL. Valid values: white: specifies the ACL as a whitelist. Only requests from the IP addresses or CIDR blocks in the ACL are forwarded. Whitelists apply to scenarios that require you to allow only specific IP addresses to access an application. Risks may arise if you specify an ACL as a whitelist. After the whitelist is enabled, only IP addresses in the whitelist are forwarded by the SLB listener. If a whitelist is enabled without IP addresses specified, the SLB listener does not forward requests. black: specifies the ACL as a blacklist. All requests from the IP addresses or CIDR blocks in the ACL are rejected. Blacklists apply to scenarios that require you to block access from specific IP addresses to an application. If the blacklist is enabled but the corresponding ACL does not contain IP addresses, the SLB listener forwards all requests. This parameter is required if the AclStatus parameter is set to on.
BackendServerPort	Integer	80	The backend port that is used by the SLB instance.
Description	String	test	The description of the HTTP listener.
ForwardPort	Integer	80	The listening port that is used to redirect HTTP requests to HTTPS.  Note If the value of the ListenerForward parameter is set to off, this parameter is not displayed.
IdleTimeout	Integer	2	The timeout period of an idle connection. Unit: seconds. Valid values: 1 to 60. Default value: 15. If no request is received within the specified timeout period, SLB closes the connection. SLB starts a new connection if it receives a new connection request.

Parameter	Type	Example	Description
ListenerForward	String	on	Indicates whether HTTP-to-HTTPS redirection is enabled. Valid values: on: enabled off: disabled
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.
RequestTimeout	Integer	34	The timeout period of a request. Valid values: 1 to 180 . Unit: seconds. Default value: 60 . If no response is received from the backend server during the request timeout period, SLB sends an HTTP 504 error code to the client.
Rules	Array of Rule		The description of the forwarding rule.
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 request path.
VServerGroupId	String	123	The ID of the server group with which the forwarding rule is associated.
SecurityStatus	String	on	The security status. Valid values: on and off .
XForwardedFor_SLBID	String	on	Indicates whether the <code>SLB-ID</code> header is added to obtain the ID of the SLB instance.
XForwardedFor_SLBIP	String	on	Indicates whether the SLB-IP header is used to obtain the real IP address of the client.

Parameter	Type	Example	Description
XForwardedFor_proto	String	on	Indicates whether the X-Forwarded-Proto header is used to obtain the listener protocol of the SLB instance.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeLoadBalancerHTTPListenerAttribute
&ListenerPort=80
&LoadBalancerId=lb-bp1o94dp5*****
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeLoadBalancerHTTPListenerAttributeResponse>
  <ForwardPort>443</ForwardPort>
  <ListenerPort>80</ListenerPort>
  <Status>stopped</Status>
  <RequestId>99439CEF-192C-4B01-A45A-2D5BD5BCDA62</RequestId>
  <ListenerForward>on</ListenerForward>
</DescribeLoadBalancerHTTPListenerAttributeResponse>
```

JSON format

```
{
  "ForwardPort": 443,
  "ListenerPort": 80,
  "Status": "stopped",
  "RequestId": "99439CEF-192C-4B01-A45A-2D5BD5BCDA62",
  "ListenerForward": "on"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

10.HTTPS listeners

10.1. CreateLoadBalancerHTTPSListener

Creates an HTTPS listener.

Description

Newly created listeners are in the stopped state. After a listener is created, you must call the [StartLoadBalancerListener](#) operation to enable the listener to forward network traffic.

Prerequisites

A Classic Load Balancer (CLB) instance is created. For more information, see [CreateLoadBalancer](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateLoadBalancerHTTPSListener	The operation that you want to perform. Set the value to CreateLoadBalancerHTTPSListener .
Bandwidth	Integer	Yes	-1	The bandwidth limit of the listener. Unit: Mbit/s. Valid values: -1 and 1 to 5120. -1: For a pay-by-data-transfer Internet-facing CLB instance, you can set the value to -1. Then, bandwidth of the listener is unlimited. 1 to 5120: For a pay-by-bandwidth Internet-facing CLB instance, you can specify the bandwidth limit of each listener. The sum of bandwidth limit values that you set for all listeners cannot exceed the bandwidth limit of the CLB instance.
HealthCheck	String	Yes	on	Specifies whether to enable health checks. Valid values: on: enables health checks off: disables health checks

Parameter	Type	Required	Example	Description
ListenerPort	Integer	Yes	80	The frontend port that is used by the CLB instance. Valid values: 1 to 65535.
LoadBalancerId	String	Yes	lb-bp1o94dp5i6earr***	The ID of the CLB instance.
ServerCertificateId	String	Yes	idkp-123-cn-test-****	The ID of the server certificate.
StickySession	String	Yes	on	Specifies whether to enable session persistence. Valid values: on: yes off: no
RegionId	String	Yes	cn-hangzhou	The ID of the region where the CLB instance is deployed. You can query region IDs from the Regions and zones list or by calling the DescribeRegions operation.
BackendServerPort	Integer	No	80	The backend port that is used by the CLB instance. Valid values: 1 to 65535. If the VServerGroupId parameter is not set, this parameter is required.
XForwardedFor	String	No	on	Specifies whether to use the <code>X-Forwarded-For</code> header to retrieve client IP addresses. Valid values: on: yes off: no
Scheduler	String	No	wrr	The scheduling algorithm. Valid values: wrr: Backend servers that have higher weights receive more requests than backend servers that have lower weights. rr: Requests are distributed to backend servers in sequence.

Parameter	Type	Required	Example	Description
StickySessionType	String	No	insert	The method that is used to handle a cookie. Valid values: insert and server. insert: inserts a cookie. CLB inserts a cookie (SERVERID) into the first HTTP or HTTPS response that is sent to a client. The next request from the client will contain this cookie, and the listener will distribute this request to the recorded backend server. server: rewrites a cookie. When CLB detects a user-defined cookie, it overwrites the original cookie with the user-defined cookie. The next request from the client will contain the user-defined cookie, and the listener will distribute this request to the recorded backend server.  Note This parameter is required if the StickySession parameter is set to on.
CookieTimeout	Integer	No	500	The timeout period of the cookie. Unit: seconds. Valid values: 1 to 86400.  Note If StickySession is set to on and StickySessionType is set to insert, this parameter is required.
Cookie	String	No	B490B5EBF6F3CD402E515D22BCDA**	The cookie to be configured on the backend server. The cookie must be 1 to 200 characters in length, and can contain only ASCII characters and digits. It cannot contain commas (,), semicolons (;), or space characters. It cannot start with a dollar sign (\$).  Note If StickySession is set to on and StickySessionType is set to insert, this parameter is required.

Parameter	Type	Required	Example	Description
HealthCheckMethod	String	No	get	The HTTP method that is used for health checks. Valid values: head and get.  Note This parameter takes effect only when the HealthCheck parameter is set to on.
HealthCheckDomain	String	No	172.XX.XX.16	The domain name that is used for health checks. Valid values: • \$_ip: the private IP address of a backend server. If you do not set this parameter or set the parameter to \$_ip, CLB uses the private IP address of each backend server as the domain name for health checks. • domain: The domain name must be 1 to 80 characters in length, and can contain letters, digits, periods (.), and hyphens (-).  Note This parameter takes effect only when the HealthCheck parameter is set to on.
HealthCheckURI	String	No	/test/index.html	The URL that is used for health checks. The URL must be 1 to 80 characters in length, and can contain letters, digits, and the following special characters: <code>/ . % ? # & -</code>. The URL must start with a forward slash (<code>/</code>), but cannot be a single forward slash (<code>/</code>).  Note This parameter takes effect only when the HealthCheck parameter is set to on.

Parameter	Type	Required	Example	Description
HealthyThreshold	Integer	No	4	The number of health checks that an unhealthy backend server must consecutively pass before it can be declared healthy (from fail to success). Valid values: 2 to 10.  Note This parameter takes effect only when the HealthCheck parameter is set to on.
UnhealthyThreshold	Integer	No	4	The number of health checks that a healthy backend server must consecutively fail before it can be declared unhealthy (from success to fail). Valid values: 2 to 10.  Note This parameter takes effect only when the HealthCheck parameter is set to on.

Parameter	Type	Required	Example	Description
HealthCheckTimeout	Integer	No	3	The timeout period of a health check response. If a backend server does not respond within the specified timeout period, the health check fails. Unit: seconds. Valid values: 1 to 300.  Note - If the value of the HealthCheckTimeout parameter is smaller than that of the HealthCheckInterval parameter, the timeout period specified by the HealthCheckTimeout parameter is invalid and the value of the HealthCheckInterval parameter is used as the timeout period. - This parameter takes effect only when the HealthCheck parameter is set to on.
HealthCheckConnectPort	Integer	No	8080	The port that is used for health checks. Valid values: 1 to 65535.  Note This parameter takes effect only when the HealthCheck parameter is set to on.
HealthCheckInterval	Integer	No	5	The interval between two consecutive health checks. Unit: seconds. Valid values: 1 to 50.  Note This parameter takes effect only when the HealthCheck parameter is set to on.

Parameter	Type	Required	Example	Description
HealthCheckHttpCode	String	No	http_2xx,http_3xx	The HTTP status code of a successful health check. Separate multiple HTTP status codes with commas (,). Valid values: http_2xx, http_3xx, http_4xx, and http_5xx.  Note This parameter takes effect only when the HealthCheck parameter is set to on.
VServerGroupId	String	No	rsp-cige6j5e7p****	The ID of the server group.
CACertificateId	String	No	139a00604ad-cn-east-hangzh****	The ID of the CA certificate. If both the CA certificate and the server certificate are uploaded, mutual authentication is used. If you upload only the server certificate, one-way authentication is used.
XForwardedFor_SLBIP	String	No	on	Specifies whether to use the <code>SLB-IP</code> header to retrieve the virtual IP address (VIP) requested by the client. Valid values: on: yes off: no
XForwardedFor_SLBID	String	No	on	Specifies whether to use the <code>SLB-ID</code> header to retrieve the ID of the CLB instance. Valid values: on: yes off: no
XForwardedFor_protocol	String	No	on	Specifies whether to use the <code>X-Forwarded-Proto</code> header to retrieve the listener protocol. Valid values: on: yes off: no

Parameter	Type	Required	Example	Description
Gzip	String	No	on	Specifies whether to enable <code>Gzip</code> compression to compress specific types of files. Valid values: • on: yes • off: no
AclId	String	No	nacl-a2do9e413e0spzasx****	The ID of the network access control list (ACL) that you want to associate with the listener.  Note If <code>AclStatus</code> is set to on, this parameter is required.

Parameter	Type	Required	Example	Description
AclType	String	No	white	The type of network ACL. Valid values: white: a whitelist. Only requests from the IP addresses or CIDR blocks in the network ACL are forwarded. Whitelists apply to scenarios where you want to allow only specific IP addresses to access an application. Your business may be adversely affected if the whitelist is not set properly. After a whitelist is configured, only IP addresses in the whitelist can access the CLB listener. black: a blacklist. All requests from the IP addresses or CIDR blocks in the network ACL are denied. Blacklists apply to scenarios where you want to deny access from specified IP addresses to an application. If no IP address is added to the whitelist, the CLB listener forwards all requests. If no IP address is added to the blacklist, the listener forwards all requests.  Note This parameter takes effect only when AclStatus is set to on.
AclStatus	String	No	off	Specifies whether to enable access control. Valid values: on: yes off: no

Parameter	Type	Required	Example	Description
Description	String	No	CreateListeners	The description of the listener. The description must be 1 to 80 characters in length and can contain letters, digits, hyphens (-), forward slashes (/), periods (.), and underscores (_).
IdleTimeout	Integer	No	12	The timeout period of an idle connection. Valid values: 1 to 60. Default value: 15. Unit: seconds. If no request is received within the specified timeout period, CLB closes the connection. When another request is received, CLB establishes a new connection.
RequestTimeout	Integer	No	23	The timeout period of a request. Valid values: 1 to 180. Default value: 60. Unit: seconds. If no response is received from the backend server during the request timeout period, CLB sends an HTTP 504 error code to the client.
EnableHttp2	String	No	off	Specifies whether to use HTTP/2. Valid values: on: yes off: no
				The Transport Layer Security (TLS) security policy. Each security policy contains TLS protocol versions and cipher suites available for HTTPS. tls_cipher_policy_1_0: - Supported TLS versions: TLS 1.0, TLS 1.1, and TLS 1.2 - 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-SHA, ECDHE-RSA-AES128-SHA, ECDHE-RSA-AES256-SHA, AES128-SHA, AES256-SHA, and DES-CBC3-SHA

Parameter	Type	Required	Example	Description
TLSCipherPolicy	String	No	tls_cipher_policy_1_1	• tls_cipher_policy_1_1: Supported TLS versions: TLS 1.1 and TLS 1.2 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_2 Supported TLS version: TLS 1.2 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_2_strict Supported TLS version: TLS 1.2 Supported cipher suites: ECDHE-RSA-AES128-GCM-SHA256, ECDHE-RSA-AES256-GCM-SHA384, ECDHE-RSA-AES128-SHA256, ECDHE-RSA-AES256-SHA384, ECDHE-RSA-AES128-SHA, and ECDHE-RSA-AES256-SHA • tls_cipher_policy_1_2_strict_with_1_3 Supported TLS versions: TLS 1.2 and TLS 1.3 TLS_AES_128_GCM_SHA256, TLS_AES_256_GCM_SHA384, TLS_CHACHA20_POLY1305_SHA256, TLS_AES_128_CCM_SHA256, TLS_AES_128_CCM_8_SHA256, ECDHE-ECDSA-AES128-GCM-SHA256, ECDHE-ECDSA-AES256-GCM-SHA384, ECDHE-ECDSA-AES128-SHA256, ECDHE-ECDSA-AES256-SHA384, ECDHE-RSA-AES128-GCM-SHA256, ECDHE-RSA-AES256-GCM-SHA384, ECDHE-RSA-AES128-SHA256, ECDHE-RSA-AES256-SHA384, ECDHE-ECDSA-AES128-SHA, ECDHE-ECDSA-AES256-SHA, ECDHE-RSA-AES128-SHA, and ECDHE-RSA-AES256-SHA

Response parameters

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

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateLoadBalancerHTTPSListener
&Bandwidth=-1
&HealthCheck=on
&ListenerPort=80
&LoadBalancerId=lb-bp1o94dp5i6earr****
&ServerCertificateId=idkp-123-cn-test-****
&StickySession=on
&<Common request parameters>
```

Sample success responses

XML format

```
<CreateLoadBalancerHTTPSListenerResponse>
  <RequestId>CEF72CEB-54B6-4AE8-B225-F876FF7BA984</RequestId>
</CreateLoadBalancerHTTPSListenerResponse>
```

JSON format

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

Error codes

HttpCode	Error code	Error message	Description
400	LbNotSupportTcpsl	You cannot create a TCP SSL type listener for the specified load balancer.	The error message returned because the specified CLB instance does not support TCP SSL listeners.
400	LbSupportTcpslOnly	The specified load balancer supports TCP SSL type listener only.	The error message returned because the specified CLB instance supports only TCP SSL listeners.
400	ListenerNotSupportRule	You cannot create a rule for the specified listener.	The error message returned because the specified listener does not support forwarding rules.

HttpCode	Error code	Error message	Description
400	Mismatch.SlbSpecTypeAndListenerProtocol	The SlbSpecType and ListenerProtocol are mismatched.	The error message returned because the specified instance type and listener type do not match.

For a list of error codes, visit the [API Error Center](#).

10.2. SetLoadBalancerHTTPSListenerAttribute

You can call this operation to modify the configurations of an HTTPS listener.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	SetLoadBalancerHTTPSListenerAttribute	The operation that you want to perform. Set the value to SetLoadBalancerHTTPSListenerAttribute .
ListenerPort	Integer	Yes	80	The frontend port that is used by the SLB instance. Valid values: 1 to 65535.
LoadBalancerId	String	Yes	lb-sjhfdji****	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SLB instance is deployed. You can query the most recent region list from the Regions and zones list or by calling the DescribeRegions operation.

Parameter	Type	Required	Example	Description
Bandwidth	Integer	No	-1	Specify the maximum bandwidth value for the listener. Valid values: -1 and 1 to 5120. • -1: If you set the value to -1, this indicates that the maximum bandwidth of the listener is unlimited. • 1 to 5120: If you set the value to a number from 1 to 5120, the value that you specify indicates the maximum bandwidth of the listener. The sum of maximum bandwidth values of all listeners cannot exceed the maximum bandwidth of the SLB instance.
XForwardedFor	String	No	on	Specifies whether to use the X-Forwarded-For header to obtain the real IP address of the client. Set the value to on.
Scheduler	String	No	wrr	The scheduling algorithm. Valid values: • wrr: Backend servers that have higher weights receive more requests than those that have lower weights. This is the default value. • rr: Requests are distributed to backend servers in sequence.
StickySession	String	No	on	Indicates whether session persistence is enabled. Valid values: on and off.

Parameter	Type	Required	Example	Description
StickySessionType	String	No	insert	The method that is used to handle a cookie. Valid values: insert: Inserts a cookie. SLB inserts a cookie (SERVERID) into the first HTTP or HTTPS response packet that is sent to a client. The next request from the client will contain this cookie, and the listener will distribute this request to the recorded backend server. server: Rewrites a cookie. When SLB detects a user-defined cookie, it overwrites the original cookie with the user-defined cookie. The next request from the client will contain the user-defined cookie, and the listener will distribute the request to the recorded backend server.  Note If you set the StickySession parameter to on, this parameter is required.
CookieTimeout	Integer	No	500	The timeout period of a cookie. Valid values: 1 to 86400 . Unit: seconds  Note If you set the StickySession parameter to on and the StickySessionType parameter to insert, this parameter is required.
Cookie	String	No	B490B5EBF6F3CD4 ****	The cookie to be configured on the backend server. The cookie must be 1 to 200 characters in length, and can contain ASCII letters and digits. It cannot contain commas (,), semicolons (;), or spaces. It cannot start with a dollar sign (\$).  Note If you set the StickySession parameter to on and the StickySessionType parameter to server, this parameter is required.

Parameter	Type	Required	Example	Description
HealthCheck	String	No	on	Specifies whether to enable health checks. Valid values: on and off .
HealthCheckDomain	String	No	172.XX.XX.16	The domain name that is used for health checks. Valid values: \$_ip: The private IP address of the backend server. If the \$_ip parameter is set or the HealthCheckDomain parameter is not set, 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. It can contain only letters, digits, periods (.), and hyphens (-).  Note This parameter takes effect only if the HealthCheck parameter is set to on.
HealthCheckURI	String	No	/test/index.html	The URI that is used for health checks. The URI must be 1 to 80 characters in length, and can contain only letters, digits, hyphens (-), forward slashes (/), periods (.), percent signs (%), question marks (?), number signs (#), and ampersands (&). The URI must start with a forward slash (/) but cannot contain only a forward slash (/).  Note This parameter takes effect only if the HealthCheck parameter is set to on.

Parameter	Type	Required	Example	Description
HealthyThreshold	Integer	No	4	The number of consecutive successful health checks that must occur before an unhealthy backend server is declared healthy. In this case, the health check state is changed from fail to success. Valid values: 2 to 10.  Note This parameter takes effect only if the HealthCheck parameter is set to on.
UnhealthyThreshold	Integer	No	4	The number of consecutive failed health checks that must occur before a healthy backend server is declared unhealthy. In this case, the health check state is changed from success to fail. Valid values: 2 to 10.  Note This parameter takes effect only if the HealthCheck parameter is set to on.
HealthCheckTimeout	Integer	No	3	The timeout period of a health check response. If a backend server does not respond within the specified time period, the backend server is declared unhealthy. Valid values: 1 to 300 . Unit: seconds  Note - If the value of the HealthCheckTimeout parameter is smaller than that of the HealthCheckInterval parameter, the value of the HealthCheckTimeout parameter is ignored and the value of the HealthCheckInterval parameter is regarded as the waiting period. - This parameter takes effect only if the HealthCheck parameter is set to on.

Parameter	Type	Required	Example	Description
HealthCheckInterval	Integer	No	5	The time interval between two consecutive health checks. Valid values: 1 to 50. Unit: seconds.  Note This parameter takes effect only if the HealthCheck parameter is set to on.
HealthCheckConnectPort	Integer	No	8080	The port that is used for health checks. Valid values: 1 to 65535.  Note This parameter takes effect only if the HealthCheck parameter is set to on.
HealthCheckHttpCode	String	No	http_2xx,http_3xx	The HTTP status code that indicates a successful health check. Separate multiple HTTP status codes with commas (,). Valid values: http_2xx, http_3xx, http_4xx, and http_5xx.  Note This parameter takes effect only if the HealthCheck parameter is set to on.
ServerCertificateId	String	No	idkp-123-cn-te****	The ID of the server certificate.
CACertificateId	String	No	139a00604ad-cn-east-****	The ID of the CA certificate. - If both the CA certificate and the server certificate are uploaded, two-factor authentication is used. - If you upload only the server certificate, single-factor authentication is used.
VServerGroup	String	No	on	Specifies whether to use a vServer group. Valid values: on and off.
VServerGroupId	String	No	rsp-cige6j****	The ID of the vServer group.

Parameter	Type	Required	Example	Description
XForwardedFor_SLBIP	String	No	on	Specifies whether to use the <code>SLB-IP</code> header to obtain the real IP address of the client. Valid values: on and off .
XForwardedFor_SLBID	String	No	on	Specifies whether to use the <code>SLB-ID</code> header to obtain the ID of the SLB instance. Valid values: on and off .
XForwardedFor_protocol	String	No	on	Specifies whether to use the <code>X-Forwarded-Proto</code> header to obtain the listener protocol of the SLB instance. Valid values: on and off .
Gzip	String	No	on	Specifies whether to enable gzip compression to compress files of a specific type. Valid values: on and off .
AclId	String	No	nacl-a2do9e413e0spzasx****	The ID of the network access control list (ACL) that is associated with the listener. This parameter is required if the AclStatus parameter is set to on .

Parameter	Type	Required	Example	Description
AclType	String	No	white	The type of the ACL. Valid values: white: specifies the ACL as a whitelist. Only requests from the IP addresses or CIDR blocks in the ACL are forwarded. Whitelists apply to scenarios that require you to allow only specific IP addresses to access an application. Risks may arise if you specify an ACL as a whitelist. After you set a whitelist for an SLB listener, only requests from IP addresses that are added to the whitelist are distributed by the listener. If you enable a blacklist but do not specify IP addresses, the listener forwards all requests. black: All requests from the IP addresses or CIDR blocks in the ACL are denied. The blacklist is used to forbid specified IP addresses from accessing an application. If you enable a blacklist but do not specify IP addresses, the listener forwards all requests. This parameter takes effect if the AclStatus parameter is set to on.
AclStatus	String	No	off	Specifies whether to enable the access control feature. Valid values: on and off.
IdleTimeout	Integer	No	23	The timeout period of an idle connection. Valid values: 1 to 60. Default value: 15. Unit: seconds. If no request is received during the specified timeout period, the SLB instance closes the connection. When another request is received, the SLB instance establishes a new connection.

Parameter	Type	Required	Example	Description
RequestTimeout	Integer	No	223	The timeout period of a request. Unit: seconds. Valid values: 1 to 180. Default value: 60. If no response is received from the backend server during the request timeout period, SLB sends an HTTP 504 error code to the client.
EnableHttp2	String	No	off	Specifies whether to enable HTTP/2. Default value: on. Valid values: on and off.
TLS cipher policy	String	No	tls_cipher_policy_1_2	You can specify the TLS cipher policy parameter only for a guaranteed-performance instance. Each security policy includes TLS protocol versions and cipher suites available for HTTPS. You can select a security policy based on your requirements. The following 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. • tls_cipher_policy_1_2 ◦ Supported TLS version: TLSv1.2.

Parameter	Type	Required	Example	Description
				- 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_2_strict - Supported TLS version: TLSv1.2. - Supported cipher suites: ECDHE-RSA-AES128-GCM-SHA256, ECDHE-RSA-AES256-GCM-SHA384, ECDHE-RSA-AES128-SHA256, ECDHE-RSA-AES256-SHA384, ECDHE-RSA-AES128-SHA, and ECDHE-RSA-AES256-SHA.
Description	String	No	Listener description	The description of the listener.

Response parameters

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

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=SetLoadBalancerHTTPSListenerAttribute
&ListenerPort=80
&LoadBalancerId=lb-sjhfdji*****
&<Common request parameters>
```

Sample success responses

XML format

```
<SetLoadBalancerHTTPSListenerAttributeResponse>
  <RequestId>CEF72CEB-54B6-4AE8-B225-F876FF7BA984</RequestId>
</SetLoadBalancerHTTPSListenerAttributeResponse>
```

JSON format

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

Error codes

For a list of error codes, visit the [API Error Center](#).

10.3.

DescribeLoadBalancerHTTPSListenerAttribute

Queries the configurations of an HTTPS listener.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeLoadBalancerHTTPSListenerAttribute	The operation that you want to perform. Set the value to DescribeLoadBalancerHTTPSListenerAttribute .
ListenerPort	Integer	Yes	80	The frontend port that is used by the SLB instance. Valid values: 1 to 65535.
LoadBalancerId	String	Yes	lb-bp1mxu5r8lau****	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SLB instance is deployed.

Response parameters

Parameter	Type	Example	Description
ListenerPort	Integer	80	The frontend port that is used by the SLB instance.
BackendServerPort	Integer	80	The backend port that is used by the SLB instance.
Bandwidth	Integer	-1	The maximum bandwidth value of the listener.

Parameter	Type	Example	Description
Status	String	stopped	The state of the listener. Valid values: running and stopped .
XForwardedFor	String	on	Indicates whether the X-Forwarded-For header is added to obtain the real IP address of the client. Valid values: on and off .
Scheduler	String	wrr	The scheduling algorithm. Valid values: wrr and rr . • wrr (default): Backend servers that have higher weights receive more requests than those that have lower weights. • rr: Requests are distributed to backend servers in sequence.
StickySession	String	on	Indicates whether session persistence is enabled. Valid values: on and off .

Parameter	Type	Example	Description
StickySessionType	String	insert	The method that is used to handle a cookie. If you set the StickySession parameter to on, this parameter is required. Valid values: insert and server. insert: inserts a cookie. SLB inserts a cookie (SERVERID) into the first HTTP or HTTPS response packet that is sent to a client. The next request from the client will contain this cookie, and the listener will distribute this request to the recorded backend server. server: Rewrites a cookie. When SLB detects a user-defined cookie, it overwrites the original cookie with the user-defined cookie. The next request from the client will contain the user-defined cookie, and the listener will distribute the request to the recorded backend server.  Note If you set the StickySession parameter to on, this parameter is required.
CookieTimeout	Integer	500	The timeout period of the cookie.
Cookie	String	B490B5EBF6F3CD402E515D22BCDA1598	The cookie to be configured on the backend server.
HealthCheck	String	on	Indicates whether health checks are enabled. Valid values: on and off.
HealthCheckDomain	String	www.test.com	The domain name that is used for health checks.

Parameter	Type	Example	Description
HealthCheckURI	String	/test/index.html	The URI that is used for health checks. The URI must be 1 to 80 characters in length and can contain letters, digits, hyphens (-), forward slashes (/), periods (.), %?number signs (#), and ampersands (&). The URI must start with a forward slash (/) and cannot be a single forward slash (/).
HealthyThreshold	Integer	4	The healthy threshold.
UnhealthyThreshold	Integer	4	The unhealthy threshold.
HealthCheckTimeout	Integer	3	The timeout period of each health check response. Unit: seconds.
HealthCheckInterval	Integer	5	The interval at which health checks are performed. Unit: seconds.
HealthCheckHttpCode	String	http_2xx,http_3xx	The HTTP status code that indicates the health check is successful.
HealthCheckConnectPort	Integer	8080	The port that is used for health checks.  Note This parameter takes effect only if the HealthCheck parameter is set to on.
ServerCertificateId	String	idkp-123-cn-test-0**	The ID of the server certificate.
CACertificateId	String	idkp-234-cn-test-0**	The ID of the CA certificate.
VServerGroupId	String	rsp-cige6j5e*****	The ID of the associated server group.
Gzip	String	on	Indicates whether gzip compression is enabled. Valid values: on and off.

Parameter	Type	Example	Description
AclId	String	nacl-a2do9e413e0spzasx***	The ID of the access control list (ACL) to which the listener is bound. This parameter is required if the AclStatus parameter is set to on .
AclStatus	String	off	Indicates whether the access control feature is enabled. Valid values: on and off . Default value: off.
AclType	String	white	The type of ACL. Valid values: • white: specifies the ACL as a whitelist. Only requests from the IP addresses or CIDR blocks in the ACL are forwarded. Whitelists apply to scenarios that require you to allow only specific IP addresses to access an application. Risks may occur if the whitelist is improperly set. After you set a whitelist for an SLB listener, only requests from IP addresses that are added to the whitelist are distributed by the listener. If you enable a whitelist but the whitelist does not contain an IP address, the CLB listener does not forward requests. • black: specifies the ACL as a blacklist. All requests from the IP addresses or CIDR blocks in the ACL are rejected. Blacklists apply to scenarios that require you to block access from specific IP addresses to an application. If the blacklist is enabled but the corresponding ACL does not contain IP addresses, the SLB listener forwards all requests. This parameter is required if the AclStatus parameter is set to on .
Description	String	ListenerDescription	The description of the listener.
DomainExtensions	Array of DomainExtensions		The list of extra domain names.
DomainExtension			
Domain	String	www.example.com	The domain names.

Parameter	Type	Example	Description
DomainExtensionId	String	12	The IDs of the extra domain names.
ServerCertificateId	String	13344444****	The ID of the certificate that corresponds to the domain name.
EnableHttp2	String	off	Indicates whether HTTP2 is enabled. Valid values: on and off .
IdleTimeout	Integer	23	The timeout period of an idle connection. Unit: seconds. Valid values: 1 to 60. Default value: 15. If no request is received during the specified timeout period, the SLB instance closes the connection. When another request is received, the SLB instance establishes a new connection.
RequestId	String	365F4154-92F6-4AE4-92F8-7FF3*****	The ID of the request.
RequestTimeout	Integer	43	The timeout period of a request. Unit: seconds. Valid values: 1 to 180. Default value: 60. If the backend server does not response within the specified timeout period, SLB returns an HTTP 504 error code to the client.
Rules	Array of Rule		The list of forwarding rules of the listener.
Rule			
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 request path.
VServerGroupId	String	12	The ID of the server group with which the forwarding rule is associated.

Parameter	Type	Example	Description
SecurityStatus	String	on	The security status. Valid values: on and off .

Parameter	Type	Example	Description
TLSCipherPolicy	String	tls_cipher_policy_1_0	You can set the TLSCipherPolicy parameter only for a high-performance instance. Each security policy includes TLS protocol versions and cipher suites available for HTTPS. The following security policies are supported. For more information, see the descriptions of differences in TLS security policies. You can select a policy as needed. • 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. • tls_cipher_policy_1_2 Supported TLS version: 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_2_strict Supported TLS version: TLSv1.2.

Parameter	Type	Example	Supported cipher suites: ECDHE-RSA-AES128-GCM-SHA256, ECDHE-RSA-AES256-GCM-SHA384, ECDHE-RSA-AES128-SHA256, ECDHE-RSA-AES256-SHA384, ECDHE-RSA-AES128-SHA, and ECDHE-RSA-AES256-SHA
XForwardedFor_ClientCertClientVerify	String	off	Indicates whether the XForwardedFor_ClientCertClientVerify header field is used to obtain the verification result of the client certificate. Valid values: on and off .
XForwardedFor_ClientCertFingerprint	String	off	Indicates whether the XForwardedFor_ClientCertFingerprint header field is used to obtain the fingerprint of the client certificate. Valid values: on and off .
XForwardedFor_ClientCertIssuerDN	String	off	Indicates whether the XForwardedFor_ClientCertIssuerDN header field is used to obtain information about the authority that issues the client certificate. Valid values: on and off .
XForwardedFor_ClientCertSubjectDN	String	off	Indicates whether the XForwardedFor_ClientCertSubjectDN header field is used to obtain information about the owner of the client certificate. Valid values: on and off .
XForwardedFor_ClientSrcPort	String	off	Indicates whether the XForwardedFor_ClientSrcPort header field is used to obtain the port over which a client communicates with the SLB instance. Valid values: on and off .
XForwardedFor_SLBID	String	on	Indicates whether the SLB-ID header field is used to obtain the ID of the SLB instance. Valid values: on and off .
XForwardedFor_SLBIP	String	on	Indicates whether the SLB-IP header field is used to obtain the real IP address of the client. Valid values: on and off .

Parameter	Type	Example	Description
XForwardedFor_SLBPORT	String	off	Indicates whether the <code>XForwardedFor_SLBPORT</code> field is used to query the listener port of the SLB instance. Valid values: on and off .
XForwardedFor_proto	String	on	Indicates whether the <code>X-Forwarded-Proto</code> header field is used to obtain the listener protocol of the SLB instance. Valid values: on and off .

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeLoadBalancerHTTPSListenerAttribute
&ListenerPort=80
&LoadBalancerId=lb-bp1mxu5r8lau*****
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeLoadBalancerHTTPSListenerAttributeResponse>
  <RequestId>11F52428-64ED-40F7-98C2-DBB6D0BB0AD7</RequestId>
  <HealthCheckHttpCode>http_2xx,http_3xx</HealthCheckHttpCode>
  <HealthCheckTimeout>5</HealthCheckTimeout>
  <ServerCertificateId>1231579xxxxxxxxx_15dbf6ff26f_1991415478_2054196746</ServerCertificateId>
  <XForwardedFor_SLBID>off</XForwardedFor_SLBID>
  <Gzip>on</Gzip>
  <HealthyThreshold>3</HealthyThreshold>
  <Scheduler>wrr</Scheduler>
  <StickySession>off</StickySession>
  <UnhealthyThreshold>3</UnhealthyThreshold>
  <XForwardedFor_SLBIP>off</XForwardedFor_SLBIP>
  <XForwardedFor_proto>off</XForwardedFor_proto>
  <Bandwidth>-1</Bandwidth>
  <HealthCheckURI></HealthCheckURI>
  <VServerGroupId>rsp-0xiju72x*****</VServerGroupId>
  <HealthCheck>on</HealthCheck>
  <ListenerPort>443</ListenerPort>
  <Status>running</Status>
  <XForwardedFor>on</XForwardedFor>
  <HealthCheckDomain></HealthCheckDomain>
  <HealthCheckInterval>2</HealthCheckInterval>
  <BackendServerPort>443</BackendServerPort>
</DescribeLoadBalancerHTTPSListenerAttributeResponse>
```

JSON format

```
{
  "RequestId": "11F52428-64ED-40F7-98C2-DBB6D0BB0AD7",
  "HealthCheckHttpCode": "http_2xx,http_3xx",
  "HealthCheckTimeout": 5,
  "ServerCertificateId": "1231579xxxxxxxx_15dbf6ff26f_1991415478_2054196746",
  "XForwardedFor_SLBID": "off",
  "Gzip": "on",
  "HealthyThreshold": 3,
  "Scheduler": "wrr",
  "StickySession": "off",
  "UnhealthyThreshold": 3,
  "XForwardedFor_SLBIP": "off",
  "XForwardedFor_proto": "off",
  "Bandwidth": -1,
  "HealthCheckURI": "/",
  "VServerGroupId": "rsp-0xiju72x*****",
  "HealthCheck": "on",
  "ListenerPort": 443,
  "Status": "running",
  "XForwardedFor": "on",
  "HealthCheckDomain": "",
  "HealthCheckInterval": 2,
  "BackendServerPort": 443
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

11.Listener management

11.1. DescribeLoadBalancerListeners

Queries listeners of Classic Load Balancer (CLB) instances.

Prerequisites

- A CLB instance is created. For more information, see [CreateLoadBalancer](#).
- A listener is created. For more information, see:
 - [CreateLoadBalancerUDPListener](#)
 - [CreateLoadBalancerTCPListener](#)
 - [CreateLoadBalancerHTTPListener](#)
 - [CreateLoadBalancerHTTPSListener](#)

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeLoadBalancerListeners	The operation that you want to perform. Set the value to DescribeLoadBalancerListeners .
RegionId	String	Yes	cn-hangzhou	The region ID of the CLB instance.
NextToken	String	No	FFmyTO70tTpLG6I3FmYAXGKpd****	The start position of the query. If this parameter is left empty, the query starts from the beginning. Note If you call the operation for the first time, you do not need to set the parameter. The response to the first call contains the token that can be used for the second call. Each subsequent response contains the token that can be used for the next call.

Parameter	Type	Required	Example	Description
MaxResults	Integer	No	50	The maximum number of entries to return. Valid value: 1 to 100 . If you do not set the parameter, the value is set to 20 .
ListenerProtocol	String	No	http	The listener protocol. Valid values: • tcp • udp • http • https
LoadBalancerId.N	RepeatList	No	lb-123wrwer	The IDs of CLB instances. Maximum value of N: 10 .

Response parameters

Parameter	Type	Example	Description
Listeners	Array of Listener		The list of listeners returned.
AclId	String	nacl-a2do9e413e0spzasx* ***	The ID of the access control list (ACL).
AclStatus	String	off	Indicates whether the access control feature is enabled. Valid values: • on: yes • off (default): no

Parameter	Type	Example	Description
AclType	String	white	The type of the ACL. Valid values: white: indicates a whitelist. Only requests from the IP addresses or CIDR blocks in the ACL are forwarded. Whitelists apply to scenarios when you want to allow only specified IP addresses to access an application. Risks may arise if you specify an ACL as a whitelist. After a whitelist is configured, only IP addresses in the whitelist can access the listener. - If you enable a whitelist but the whitelist does not contain an IP address, the listener does not forward requests. black: indicates a blacklist. All requests from the IP addresses or CIDR blocks in the ACL are rejected. Blacklists apply to scenarios where you want to block access from specified IP addresses to an application. - If you enable a blacklist but the blacklist does not contain an IP address, the listener forwards all requests.
BackendServerPort	Integer	80	The port of the backend server.  Note If the listener is associated with a vServer group, this parameter is not returned.
Bandwidth	Integer	-1	The maximum bandwidth of the listener. Unit: Mbit/s. -1: indicates that the maximum bandwidth is unlimited. 1 to 5120: the maximum bandwidth of the listener. The sum of the maximum bandwidth values of all listeners cannot exceed the maximum bandwidth value of the CLB instance.
Description	String	test	The description of the listener.
HTTPListenerConfig	Struct		The configuration of the HTTP listener.
Cookie	String	B490B5EBF6F3CD402E515D22BCDA****	The cookie that is configured on the server.

Parameter	Type	Example	Description
CookieTimeout	Integer	500	The timeout period of the cookie.
ForwardPort	Integer	80	The listener port that is used to redirect HTTP requests to HTTPS listeners.  Note If the <code>ListenerForward</code> parameter is set to <code>off</code>, this parameter is not returned.
Gzip	String	on	Indicates whether gzip compression is enabled. Valid values: <code>on</code>: yes <code>off</code>: no
HealthCheck	String	on	Indicates whether health checks are enabled. Valid values: <code>on</code>: yes <code>off</code>: no
HealthCheckConnectPort	Integer	8080	The port that is used for health checks.  Note This parameter takes effect only when the <code>HealthCheck</code> parameter is set to <code>on</code>.
HealthCheckDomain	String	www.domain****.com	The domain name that is used for health checks.
HealthCheckHttpCode	String	http_2xx,http_3xx	The HTTP status code that indicates a successful health check.
HealthCheckHttpVersion	String	HTTP 1.0	The version of the HTTP protocol.
HealthCheckInterval	Integer	5	The interval between two consecutive health checks. Unit: seconds.
HealthCheckMethod	String	get	The health check method.
HealthCheckTimeout	Integer	3	The timeout period of each health check response. Unit: seconds.

Parameter	Type	Example	Description
HealthCheckType	String	tcp	The protocol that is used for health checks.
HealthCheckURI	String	/test/index.html	The URI that is used for health checks.
HealthyThreshold	Integer	4	The number of consecutive health check successes before a backend server is declared as healthy.
IdleTimeout	Integer	15	The timeout period of idle connections. Valid values: 1 to 60. Unit: seconds. Default value: 15. If no request is received within the specified timeout period, CLB closes the current connection. When another request is received, CLB establishes a new connection.
ListenerForward	String	on	Indicates whether HTTP-to-HTTPS redirection is enabled. Valid values: • on: yes • off: no
RequestTimeout	Integer	60	The request timeout period. Valid values: 1 to 180. Unit: seconds. Default value: 60. If no response is received from the backend server during the request timeout period, CLB sends an <code>HTTP 504</code> error code to the client.
StickySession	String	on	Indicates whether session persistence is enabled. Valid values: • on: yes • off: no

Parameter	Type	Example	Description
StickySessionType	String	insert	The method that is used to handle a cookie. insert: inserts a cookie. CLB inserts a cookie (SERVERID) into the first HTTP or HTTPS response packet that is sent to a client. The next request from the client will contain this cookie, and the listener will distribute this request to the recorded backend server. server: rewrites a cookie. When CLB detects a user-defined cookie, it overwrites the original cookie with the user-defined cookie. The next request from the client will contain the user-defined cookie, and the listener will distribute the request to the recorded backend server.
UnhealthyThreshold	Integer	4	The number of consecutive health check failures before a backend server is declared unhealthy.
XForwardedFor	String	on	Indicates whether the <code>X-Forwarded-For</code> header is used to obtain the real IP address of the client. Valid values: on: yes off: no
XForwardedFor_ClientSrcPort	String	on	Indicates whether the <code>XForwardedFor_ClientSrcPort</code> header is used to obtain the port over which a client communicates with the CLB instance. Valid values: on: yes off: no
XForwardedFor_SLBID	String	on	Indicates whether the <code>SLB-ID</code> header is used to obtain the ID of the CLB instance. Valid values: on: yes off: no
XForwardedFor_SLBIP	String	on	Indicates whether the SLB-IP header is used to obtain the virtual IP address (VIP) of the client. Valid values: on: yes off: no

Parameter	Type	Example	Description
XForwardedFor_SLBPORT	String	on	Indicates whether the <code>XForwardedFor_SLBPORT</code> header is used to obtain the listener port of the CLB instance. Valid values: • on: yes • off: no
XForwardedFor_proto	String	on	Indicates whether the <code>X-Forwarded-Proto</code> header is used to obtain the listener protocol of the CLB instance. Valid values: • on: yes • off: no
HTTPSListenerConfig	Struct		The configuration of the HTTPS listener.
CACertificateId	String	idkp-234-cn-test-0****	The ID of the certificate issued by a certificate authority (CA).
Cookie	String	B490B5EBF6F3CD402E515D22BCDA****	The cookie that is configured on the server.
CookieTimeout	Integer	500	The timeout period of the cookie.
EnableHttp2	String	off	Indicates whether <code>HTTP/2</code> is enabled. Valid values: • on: yes • off: no
Gzip	String	on	Indicates whether gzip compression is enabled. Valid values: • on: yes • off: no
HealthCheck	String	on	Indicates whether health checks are enabled. Valid values: • on: yes • off: no
HealthCheckConnectPort	Integer	8080	The port that is used for health checks.

Parameter	Type	Example	Description
HealthCheckDomain	String	www.domain****.com	The domain name that is used for health checks.
HealthCheckHttpCode	String	http_2xx,http_3xx	The HTTP status code that indicates a successful health check.
HealthCheckHttpVersion	String	HTTP 1.0	The version of the HTTP protocol.
HealthCheckInterval	Integer	5	The time interval between two consecutive health checks. Unit: seconds.
HealthCheckMethod	String	get	The health check method.
HealthCheckTimeout	Integer	3	The timeout period of each health check response. Unit: seconds.
HealthCheckType	String	tcp	The protocol that is used for health checks.
HealthCheckURI	String	/test/index.html	The URI that is used for health checks.
HealthyThreshold	Integer	4	The number of consecutive health check successes before a backend server is declared as healthy.
IdleTimeout	Integer	15	The timeout period of idle connections. Unit: seconds. Valid values: 1 to 60. Default value: 15. If no request is received within the specified timeout period, CLB closes the current connection. When another request is received, CLB establishes a new connection.
RequestTimeout	Integer	60	The request timeout period. Unit: seconds. Valid values: 1 to 180. Default value: 60. If no response is received from the backend server during the request timeout period, CLB sends an <code>HTTP 504</code> error code to the client.
ServerCertificateId	String	idkp-123-cn-test-0****	The ID of the server certificate.

Parameter	Type	Example	Description
StickySession	String	on	Indicates whether session persistence is enabled. Valid values: • on: yes • off: no
StickySessionType	String	insert	The method that is used to handle a cookie. • insert: inserts a cookie. CLB inserts a cookie (SERVERID) into the first HTTP or HTTPS response packet that is sent to a client. The next request from the client will contain this cookie, and the listener will distribute this request to the recorded backend server. • server: rewrites a cookie. When CLB detects a user-defined cookie, it overwrites the original cookie with the user-defined cookie. The next request from the client will contain the user-defined cookie, and the listener will distribute the request to the recorded backend server.
			The TLS security policy. A TLS security policy contains TLS protocol versions and cipher suites that are available for HTTPS. • tls_cipher_policy_1_0: Supported TLS versions: TLS 1.0, TLS 1.1, and TLS 1.2 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: TLS 1.1 and TLS 1.2 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_2 Supported TLS version: TLS 1.2

Parameter	Type	Example	Description
<code>TlsCipherPolicy</code>	String	<code>tls_cipher_policy_1_0</code>	Supported cipher suites: ECDHE-RSA-AES128-GCM-SHA256, ECDHE-RSA-AES256-GCM-SHA384, ECDHE-RSA-AES128-SHA256, ECDHE-RSA-AES256-GCM-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 <code>tls_cipher_policy_1_2_strict</code> Supported TLS version: TLS 1.2 Supported cipher suites: ECDHE-RSA-AES128-GCM-SHA256, ECDHE-RSA-AES256-GCM-SHA384, ECDHE-RSA-AES128-SHA256, ECDHE-RSA-AES256-SHA384, ECDHE-RSA-AES128-SHA, and ECDHE-RSA-AES256-SHA <code>tls_cipher_policy_1_2_strict_with_1_3</code> Supported TLS versions: TLS 1.2 and TLS 1.3 TLS_AES_128_GCM_SHA256, TLS_AES_256_GCM_SHA384, TLS_CHACHA20_POLY1305_SHA256, TLS_AES_128_CCM_SHA256, TLS_AES_128_CCM_8_SHA256, ECDHE-ECDSA-AES128-GCM-SHA256, ECDHE-ECDSA-AES256-GCM-SHA384, ECDHE-ECDSA-AES128-SHA256, ECDHE-ECDSA-AES256-SHA384, ECDHE-RSA-AES128-GCM-SHA256, ECDHE-RSA-AES256-GCM-SHA384, ECDHE-RSA-AES128-SHA256, ECDHE-RSA-AES256-SHA384, ECDHE-ECDSA-AES128-SHA, ECDHE-ECDSA-AES256-SHA, ECDHE-RSA-AES128-SHA, and ECDHE-RSA-AES256-SHA
<code>UnhealthyThreshold</code>	Integer	4	The number of consecutive health check failures before a backend server is declared unhealthy.
<code>XForwardedFor</code>	String	on	Indicates whether the <code>X-Forwarded-For</code> header is used to obtain the real IP address of the client. Valid values: <code>on</code>: yes <code>off</code>: no
<code>XForwardedFor_ClientCertClientVerify</code>	String	off	Indicates whether the <code>XForwardedFor_ClientCertClientVerify</code> header is used to obtain the verification result of the client certificate. Valid values: <code>on</code>: yes <code>off</code>: no

Parameter	Type	Example	Description
XForwardedFor_ClientCertFingerprint	String	off	Indicates whether the <code>XForwardedFor_ClientCertFingerprint</code> header is used to obtain the fingerprint of the client certificate. Valid values: • on: yes • off: no
XForwardedFor_ClientCertIssuerDN	String	off	Indicates whether the <code>XForwardedFor_ClientCertIssuerDN</code> header is used to obtain information about the authority that issues the client certificate. Valid values: • on: yes • off: no
XForwardedFor_ClientCertSubjectDN	String	off	Indicates whether the <code>XForwardedFor_ClientCertSubjectDN</code> header is used to obtain information about the owner of the client certificate. Valid values: • on: yes • off: no
XForwardedFor_ClientSrcPort	String	off	Indicates whether the <code>XForwardedFor_ClientSrcPort</code> header is used to obtain the port over which a client communicates with the CLB instance. Valid values: • on: yes • off: no
XForwardedFor_SLBID	String	on	Indicates whether the <code>SLB-ID</code> header is used to obtain the ID of the CLB instance. Valid values: • on: yes • off: no
XForwardedFor_SLBIP	String	on	Indicates whether the <code>SLB-IP</code> header is used to obtain the virtual IP address (VIP) of the client. Valid values: • on: yes • off: no

Parameter	Type	Example	Description
XForwardedFor_SLBPORT	String	off	Indicates whether the <code>XForwardedFor_SLBPORT</code> header is used to obtain the listener port of the CLB instance. Valid values: • on: yes • off: no
XForwardedFor_proto	String	on	Indicates whether the <code>X-Forwarded-Proto</code> header is used to obtain the listener protocol of the CLB instance. Valid values: • on: yes • off: no
ListenerPort	Integer	123	The listener port.
ListenerProtocol	String	http	The listener protocol.
LoadBalancerId	String	lb-bp1b6c719dfa****	The ID of the CLB instance.
Scheduler	String	wrr	The scheduling algorithm. • wrr: Backend servers that have higher weights receive more requests than the backend servers that have lower weights. • rr: Requests are sequentially distributed to backend servers.
Status	String	running	The status of the listener. • running: The listener runs as expected. • stopped: The listener is stopped.
TCPListenerConfig	Struct		The configuration of the TCP listener.
ConnectionDrain	String	off	Indicates whether connection draining is enabled. Valid values: • on: yes • off: no
ConnectionDrainTimeout	Integer	300	The timeout period for the connection draining feature. Unit: seconds. Value values: 10 to 900 .

Parameter	Type	Example	Description
EstablishedTimeout	Integer	500	The timeout period of connections. Unit: seconds.
HealthCheck	String	on	Indicates whether health checks are enabled. Valid values: on: yes off: no
HealthCheckConnectPort	Integer	8080	The port that is used for health checks.
HealthCheckConnectTimeout	Integer	100	The timeout period of health checks.
HealthCheckDomain	String	www.domain****.com	The domain name that is used for health checks.
HealthCheckHttpCode	String	http_2xx,http_3xx	The HTTP status code that indicates a successful health check.
HealthCheckInterval	Integer	5	The interval between two consecutive health checks. Unit: seconds.
HealthCheckMethod	String	get	The health check method.
HealthCheckType	String	tcp	The protocol that is used for health checks.
HealthCheckURI	String	/test/index.html	The URI that is used for health checks.
HealthyThreshold	Integer	4	The number of consecutive health check successes before a backend server is declared as healthy.
MasterSlaveServerGroupId	String	rsp-0bfucw*****	The ID of the primary/secondary server group that is associated with the listener.
PersistenceTimeout	Integer	0	Indicates whether session persistence is enabled. A value of 0 indicates that session persistence is disabled.

Parameter	Type	Example	Description
UnhealthyThreshold	Integer	4	The number of consecutive health check failures before a backend server is declared unhealthy.
UDPListenerConfig	Struct		The configuration of the UDP listener.
ConnectionDrain	String	off	Indicates whether connection draining is enabled. Valid values: on: yes off: no
ConnectionDrainTimeout	Integer	300	The timeout period for the connection draining feature. Unit: seconds. Value values: 10 to 900 .
HealthCheck	String	on	Indicates whether health checks are enabled. Valid values: on: yes off: no
HealthCheckConnectPort	Integer	8080	The port that is used for health checks.
HealthCheckConnectTimeout	Integer	100	The timeout period of a health check response.
HealthCheckExp	String	ok	The response string for health checks that are performed by the UDP listener.
HealthCheckInterval	Integer	5	The interval between two consecutive health checks. Unit: seconds.
HealthCheckReq	String	hello	The request string for health checks that are performed by the UDP listener.
HealthyThreshold	Integer	4	The number of consecutive health check successes before a backend server is declared as healthy.
MasterSlaveServerGroupId	String	rsp-0bfucw****	The ID of the primary/secondary server group that is associated with the listener.

Parameter	Type	Example	Description
UnhealthyThreshold	Integer	4	The number of consecutive health check failures before a backend server is declared unhealthy.
VServerGroupId	String	rsp-cige6j****	The ID of the vServer group that is associated with the listener.
MaxResults	Integer	50	The maximum number of entries returned.
NextToken	String	FFmyT070tTpLG6l3FmYAXGKpd****	The end position of the query. If the response does not contain this parameter, all data is queried.
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.
TotalCount	Integer	1000	The total number of entries returned.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeLoadBalancerListeners
&<Common request parameters>
```

Sample success responses

XML format

```
<TotalCount>1000</TotalCount>
<Listeners>
  <Status>running</Status>
  <VServerGroupId>rsp-cige6j****</VServerGroupId>
  <ListenerPort>123</ListenerPort>
  <Description>test</Description>
  <AclStatus>off</AclStatus>
  <Scheduler>wrr</Scheduler>
  <Bandwidth>-1</Bandwidth>
  <AclId>nacl-a2do9e413e0spzasx****</AclId>
  <LoadBalancerId>lb-bp1b6c719dfa****</LoadBalancerId>
  <AclType>white</AclType>
  <ListenerProtocol>http</ListenerProtocol>
  <BackendServerPort>80</BackendServerPort>
  <HTTPListenerConfig>
    <CookieTimeout>500</CookieTimeout>
    <UnhealthyThreshold>4</UnhealthyThreshold>
    <HealthCheckURI>/test/index.html</HealthCheckURI>
    <HealthCheck>on</HealthCheck>
```

```

<IdleTimeout>15</IdleTimeout>
<XForwardedFor_SLBID>on</XForwardedFor_SLBID>
<XForwardedFor_SLBPORT>on</XForwardedFor_SLBPORT>
<HealthCheckConnectPort>8080</HealthCheckConnectPort>
<HealthCheckMethod>get</HealthCheckMethod>
<Gzip>on</Gzip>
<StickySessionType>insert</StickySessionType>
<XForwardedFor_SLBIP>on</XForwardedFor_SLBIP>
<HealthCheckHttpCode>http_2xx,http_3xx</HealthCheckHttpCode>
<Cookie>B490B5EBF6F3CD402E515D22BCDA****</Cookie>
<RequestTimeout>60</RequestTimeout>
<HealthCheckInterval>5</HealthCheckInterval>
<HealthCheckHttpVersion>HTTP 1.0</HealthCheckHttpVersion>
<HealthCheckTimeout>3</HealthCheckTimeout>
<ListenerForward>on</ListenerForward>
<StickySession>on</StickySession>
<ForwardPort>80</ForwardPort>
<HealthyThreshold>4</HealthyThreshold>
<XForwardedFor_ClientSrcPort>on</XForwardedFor_ClientSrcPort>
<XForwardedFor>on</XForwardedFor>
<HealthCheckDomain>www.domain****.com</HealthCheckDomain>
<XForwardedFor_proto>on</XForwardedFor_proto>
<HealthCheckType>tcp</HealthCheckType>
</HTTPListenerConfig>
<HTTPSListenerConfig>
  <CookieTimeout>500</CookieTimeout>
  <UnhealthyThreshold>4</UnhealthyThreshold>
  <HealthCheckURI>/test/index.html</HealthCheckURI>
  <HealthCheck>on</HealthCheck>
  <IdleTimeout>15</IdleTimeout>
  <XForwardedFor_SLBID>on</XForwardedFor_SLBID>
  <XForwardedFor_SLBPORT>off</XForwardedFor_SLBPORT>
  <HealthCheckConnectPort>8080</HealthCheckConnectPort>
  <HealthCheckMethod>get</HealthCheckMethod>
  <Gzip>on</Gzip>
  <ServerCertificateId>idkp-123-cn-test-0****</ServerCertificateId>
  <StickySessionType>insert</StickySessionType>
  <XForwardedFor_SLBIP>on</XForwardedFor_SLBIP>
  <HealthCheckHttpCode>http_2xx,http_3xx</HealthCheckHttpCode>
  <Cookie>B490B5EBF6F3CD402E515D22BCDA****</Cookie>
  <RequestTimeout>60</RequestTimeout>
  <TLSCipherPolicy>tls_cipher_policy_1_0</TLSCipherPolicy>
  <HealthCheckInterval>5</HealthCheckInterval>
  <CACertificateId>idkp-234-cn-test-0****</CACertificateId>
  <XForwardedFor_ClientCertSubjectDN>off</XForwardedFor_ClientCertSubjectDN>
  <HealthCheckHttpVersion>HTTP 1.0</HealthCheckHttpVersion>
  <HealthCheckTimeout>3</HealthCheckTimeout>
  <XForwardedFor_ClientCertIssuerDN>off</XForwardedFor_ClientCertIssuerDN>
  <StickySession>on</StickySession>
  <HealthyThreshold>4</HealthyThreshold>
  <XForwardedFor_ClientSrcPort>off</XForwardedFor_ClientSrcPort>
  <XForwardedFor>on</XForwardedFor>
  <HealthCheckDomain>www.domain****.com</HealthCheckDomain>
  <XForwardedFor_proto>on</XForwardedFor_proto>
  <EnableHttp2>off</EnableHttp2>
  <XForwardedFor_ClientCertFingerprint>off</XForwardedFor_ClientCertFingerprint>

```

```

    <XForwardedFor_ClientCertClientVerify>off</XForwardedFor_ClientCertClientVerify>
    <HealthCheckType>tcp</HealthCheckType>
  </HTTPSListenerConfig>
  <TCPListenerConfig>
    <HealthCheckInterval>5</HealthCheckInterval>
    <UnhealthyThreshold>4</UnhealthyThreshold>
    <HealthCheckURI>/test/index.html</HealthCheckURI>
    <HealthCheckConnectTimeout>100</HealthCheckConnectTimeout>
    <HealthCheck>on</HealthCheck>
    <ConnectionDrain>off</ConnectionDrain>
    <ConnectionDrainTimeout>300</ConnectionDrainTimeout>
    <PersistenceTimeout>0</PersistenceTimeout>
    <HealthCheckConnectPort>8080</HealthCheckConnectPort>
    <HealthCheckMethod>get</HealthCheckMethod>
    <HealthyThreshold>4</HealthyThreshold>
    <MasterSlaveServerGroupId>rsp-0bfucw****</MasterSlaveServerGroupId>
    <HealthCheckDomain>www.domain****.com</HealthCheckDomain>
    <HealthCheckHttpCode>http_2xx,http_3xx</HealthCheckHttpCode>
    <HealthCheckType>tcp</HealthCheckType>
    <EstablishedTimeout>500</EstablishedTimeout>
  </TCPListenerConfig>
  <UDPListenerConfig>
    <ConnectionDrainTimeout>300</ConnectionDrainTimeout>
    <HealthCheckInterval>5</HealthCheckInterval>
    <HealthCheckReq>hello</HealthCheckReq>
    <HealthCheckConnectPort>8080</HealthCheckConnectPort>
    <UnhealthyThreshold>4</UnhealthyThreshold>
    <HealthyThreshold>4</HealthyThreshold>
    <HealthCheckExp>ok</HealthCheckExp>
    <HealthCheckConnectTimeout>100</HealthCheckConnectTimeout>
    <HealthCheck>on</HealthCheck>
    <MasterSlaveServerGroupId>rsp-0bfucw****</MasterSlaveServerGroupId>
    <ConnectionDrain>off</ConnectionDrain>
  </UDPListenerConfig>
</Listeners>
<RequestId>365F4154-92F6-4AE4-92F8-7FF34B540710</RequestId>
<NextToken>FFmyT070tTpLG6I3FmYAXGKpd****</NextToken>
<MaxResults>50</MaxResults>

```

JSON format

```

{
  "TotalCount": 1000,
  "Listeners": {
    "Status": "running",
    "VServerGroupId": "rsp-cige6j****",
    "ListenerPort": 123,
    "Description": "test",
    "AclStatus": "off",
    "Scheduler": "wrr",
    "Bandwidth": -1,
    "AclId": "nacl-a2do9e413e0spzasx****",
    "LoadBalancerId": "lb-bp1b6c719dfa****",
    "AclType": "white",
    "ListenerProtocol": "http",
    "HealthCheckDomainPort": 80
  }
}

```

```

"BackendServerPort": 80,
"HTTPListenerConfig": {
    "CookieTimeout": 500,
    "UnhealthyThreshold": 4,
    "HealthCheckURI": "/test/index.html",
    "HealthCheck": "on",
    "IdleTimeout": 15,
    "XForwardedFor_SLBID": "on",
    "XForwardedFor_SLBPORT": "on",
    "HealthCheckConnectPort": 8080,
    "HealthCheckMethod": "get",
    "Gzip": "on",
    "StickySessionType": "insert",
    "XForwardedFor_SLBIP": "on",
    "HealthCheckHttpCode": "http_2xx,http_3xx",
    "Cookie": "B490B5EBF6F3CD402E515D22BCDA****",
    "RequestTimeout": 60,
    "HealthCheckInterval": 5,
    "HealthCheckHttpVersion": "HTTP 1.0",
    "HealthCheckTimeout": 3,
    "ListenerForward": "on",
    "StickySession": "on",
    "ForwardPort": 80,
    "HealthyThreshold": 4,
    "XForwardedFor_ClientSrcPort": "on",
    "XForwardedFor": "on",
    "HealthCheckDomain": "www.domain****.com",
    "XForwardedFor_proto": "on",
    "HealthCheckType": "tcp"
},
"HTTPSListenerConfig": {
    "CookieTimeout": 500,
    "UnhealthyThreshold": 4,
    "HealthCheckURI": "/test/index.html",
    "HealthCheck": "on",
    "IdleTimeout": 15,
    "XForwardedFor_SLBID": "on",
    "XForwardedFor_SLBPORT": "off",
    "HealthCheckConnectPort": 8080,
    "HealthCheckMethod": "get",
    "Gzip": "on",
    "ServerCertificateId": "idkp-123-cn-test-0****",
    "StickySessionType": "insert",
    "XForwardedFor_SLBIP": "on",
    "HealthCheckHttpCode": "http_2xx,http_3xx",
    "Cookie": "B490B5EBF6F3CD402E515D22BCDA****",
    "RequestTimeout": 60,
    "TLSCipherPolicy": "tls_cipher_policy_1_0",
    "HealthCheckInterval": 5,
    "CACertificateId": "idkp-234-cn-test-0****",
    "XForwardedFor_ClientCertSubjectDN": "off",
    "HealthCheckHttpVersion": "HTTP 1.0",
    "HealthCheckTimeout": 3,
    "XForwardedFor_ClientCertIssuerDN": "off",
    "StickySession": "on",
    "HealthyThreshold": 4,

```

```
    "XForwardedFor_ClientSrcPort": "off",
    "XForwardedFor": "on",
    "HealthCheckDomain": "www.domain****.com",
    "XForwardedFor_proto": "on",
    "EnableHttp2": "off",
    "XForwardedFor_ClientCertFingerprint": "off",
    "XForwardedFor_ClientCertClientVerify": "off",
    "HealthCheckType": "tcp"
  },
  "TCPListenerConfig": {
    "HealthCheckInterval": 5,
    "UnhealthyThreshold": 4,
    "HealthCheckURI": "/test/index.html",
    "HealthCheckConnectTimeout": 100,
    "HealthCheck": "on",
    "ConnectionDrain": "off",
    "ConnectionDrainTimeout": 300,
    "PersistenceTimeout": 0,
    "HealthCheckConnectPort": 8080,
    "HealthCheckMethod": "get",
    "HealthyThreshold": 4,
    "MasterSlaveServerGroupId": "rsp-0bfucw****",
    "HealthCheckDomain": "www.domain****.com",
    "HealthCheckHttpCode": "http_2xx,http_3xx",
    "HealthCheckType": "tcp",
    "EstablishedTimeout": 500
  },
  "UDPListenerConfig": {
    "ConnectionDrainTimeout": 300,
    "HealthCheckInterval": 5,
    "HealthCheckReq": "hello",
    "HealthCheckConnectPort": 8080,
    "UnhealthyThreshold": 4,
    "HealthyThreshold": 4,
    "HealthCheckExp": "ok",
    "HealthCheckConnectTimeout": 100,
    "HealthCheck": "on",
    "MasterSlaveServerGroupId": "rsp-0bfucw****",
    "ConnectionDrain": "off"
  }
},
"RequestId": "365F4154-92F6-4AE4-92F8-7FF34B540710",
"NextToken": "FFmyTO70tTpLG6I3FmYAXGKpd****",
"MaxResults": 50
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

11.2. StartLoadBalancerListener

You can call this operation to start a listener.

When you call this operation, note the following items:

- You can call the operation only when the listener is in the Stopped state.
- After the operation is called, the status of the listener changes to Starting.
- You cannot call this operation when the SLB instance to which the listener is bound is in the Locked state.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request Parameter

Parameter	Type	Required	Example	Description
Action	String	Yes	StartLoadBalancerListener	The operation that you want to perform. Set the value to StartLoadBalancerListener .
ListenerPort	Integer	Yes	80	The listener port of the SLB instance. Valid values: 1 to 65535 .
LoadBalancerId	String	Yes	lb-bp13jaf5qli5*****	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The region where the SLB instance is deployed. You can retrieve the region ID by calling the DescribeRegions operation.
ListenerProtocol	String	No	https	The protocol used by the listener of the SLB instance.  Note If different listeners use the same port, you must specify this parameter.

Response parameters

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

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=StartLoadBalancerListener
&ListenerPort=80
&LoadBalancerId=lb-bp13jaf5qli5*****
&<Common request parameters>
```

Sample success responses

XML format

```
<StartLoadBalancerListenerResponse>
  <RequestId>CC000321-00F2-49B8-9BCA-60D822414960</RequestId>
</StartLoadBalancerListenerResponse>
```

JSON format

```
{
  "RequestId": "CC000321-00F2-49B8-9BCA-60D822414960"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

11.3. StopLoadBalancerListener

Stops a listener.

Before you make this API call, note the following:

- After the API call is successfully made, the listener enters the stopped state.
- If the Server Load Balancer (SLB) instance to which the listener to be stopped belongs is in the locked state, this API call cannot be made.

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

Make the API call

You can use [OpenAPI Explorer](#) to make API calls, search for API calls, perform debugging, and generate SDK example code.

Request parameters

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

Parameter	Type	Required ?	Example value	Description
ListenerPort	Integer	Yes	80	The frontend listening port used by the listener. Value range: 1 to 65535
LoadBalancerId	String	Yes	lb-bp13jaf5qli5xmgl* *****	The ID of the SLB instance to which the listener belongs.
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 .
ListenerProtocol	String	No	https	The frontend listening protocol used by the SLB instance.  Note This parameter is required when listeners with different protocols use the same port.

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=StopLoadBalancerListener
&ListenerPort=80
&LoadBalancerId=lb-bp13jaf5qli5xmgl1miup
&<CommonParameters>
```

Response example

XML format

```
<StopLoadBalancerListenerResponse>
  <RequestId>21D2B318-650E-4B0B-A3B5-693D462247B3</RequestId>
</StopLoadBalancerListenerResponse>
```

JSON format

```
{
  "RequestId": "21D2B318-650E-4B0B-A3B5-693D462247B3"
}
```

Errors

For a list of error codes, visit the [API Error Center](#).

11.4. DeleteLoadBalancerListener

Deletes a listener.

 **Note** A listener can be deleted only when it is in the `stopped` or `running` state.

Make the API call

You can use [OpenAPI Explorer](#) to make API calls, search for API calls, perform debugging, and generate SDK example code.

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 listening port used by the listener. Value range: 1 to 65535
LoadBalancerId	String	Yes	lb-bp13jaf5qli5xm*** *****	The ID of the Server Load Balancer (SLB) instance to which the listener belongs.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs.
ListenerProtocol	String	No	https	The frontend listening protocol used by the listener.  Note This parameter is required when listeners with different protocols use the same port.

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=DeleteLoadBalancerListener
&ListenerPort=80
&LoadBalancerId=lb-bp13jaf5qli5xm*****
&<CommonParameters>
```

Response example

XML format

```
<DeleteLoadBalancerListenerResponse>
  <RequestId>791D8B68-AE0F-4174-AF54-088C8B3C5D54</RequestId>
</DeleteLoadBalancerListenerResponse>
```

JSON format

```
{
  "RequestId": "791D8B68-AE0F-4174-AF54-088C8B3C5D54"
}
```

Errors

For a list of error codes, visit the [API Error Center](#).

12.Default server group

12.1. SetBackendServers

Sets the weights of backend servers.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	SetBackendServers	The operation that you want to perform. Set the value to SetBackendServers .
LoadBalancerId	String	Yes	lb-bp1qjwo61pqz3a* *****	The ID of the Server Load Balancer (SLB) instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SLB instance is deployed.
ClientToken	String	No	5A2CFF0E-5718-45B5-9D4D-70B3FF3898	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must ensure that it is unique among different requests. ClientToken can contain only ASCII characters and cannot exceed 64 characters in length.
				The list of backend servers that you want to modify. The value of this parameter must be a STRING list in the JSON format. You can specify up to 20 elements in each request. • ServerId: Required. Specify the ID of the backend server. This parameter must be of the STRING type. • Port: Required. Specify the port that is used by the backend server. This parameter must be of the INTEGER type. Valid values: 1 to 65535. • Weight: Specify the weight of the backend server. This parameter must

Parameter	Type	Required	Example	Description
BackendServers	String	Yes	<pre>[{ "ServerId": "ecs-*****FmYAXG", "Weight": "100", "Type": "ecs", "Port": "80", "Description": "test-112" }]</pre>	be of the INTEGER type. Valid values: 0 to 100. • Description: Optional. Specify the description of the backend server. This parameter must be of the STRING type. The description must be 1 to 80 characters in length, and can contain letters, digits, hyphens (-), forward slashes (/), periods (.), and underscores (_). • Type: Specify the type of backend server. This parameter must be of the STRING type. Valid values: ◦ ecs (default): an Elastic Computer Service (ECS) instance. ◦ eni: an elastic network interface (ENI). You can specify ENIs as the backend servers only for high-performance SLB instances. • ServerIp: Specify the IP address of the ECS instance or ENI. Examples: • ECS: <pre>[{ "ServerId": "ecs-*****FmYAXG", "Weight": "100", "Type": "ecs", "Port": "80", "Description": "test-112" }]</pre> • ENI: <pre>[{ "ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168.**.*", "Port": "80", "Description": "test-112" }]</pre> • ENI with multiple IP addresses: <pre>[{ "ServerId": "eni-xxxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168.**.*", "Port": "80", "Description": "test-112" }, { "ServerId": "eni-xxxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "172.166.**.*", "Port": "80", "Description": "test-113" }]</pre>  Note • The backend servers must be in the Running state. You can specify up to 20 backend servers in each request.

Response parameters

Parameter	Type	Example	Description
LoadBalancerId	String	lb-bp1qjwo61pqz3a****	The ID of the SLB instance.
BackendServers	Array of BackendServer		The list of backend servers.
BackendServer			
ServerId	String	eni-hhshhs****	The ID of the backend server.
Weight	String	100	The weight of the backend server.
Description	String	BackendServer	The description of the server.
Type	String	eni	The type of backend server. Valid values: - ecs (default): an ECS instance - eni: an ENI
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=SetBackendServers
&LoadBalancerId=lb-bp1qjwo61pqz3a*****
&BackendServers=[{ "ServerId": "i-xxxxxxxx", "Weight": "100", "Type": "ecs", "Port": "80", "Description": "test-112" }]
&<Common request parameters>
```

Sample success responses

XML format

```
<SetBackendServersResponse>
  <RequestId>365F4154-92F6-4AE4-92F8-7FF34B540710</RequestId>
  <LoadBalancerId>lb-dhf13*****</LoadBalancerId>
  <BackendServers>
    <BackendServer>
      <ServerId>eni-hg231**</ServerId>
      <Weight>100</Weight>
      <Type>eni</Type>
    </BackendServer>
    <BackendServer>
      <ServerId>eni-hfhf***</ServerId>
      <Weight>100</Weight>
      <Type>eni</Type>
    </BackendServer>
  </BackendServers>
</SetBackendServersResponse>
```

JSON format

```
{
  "RequestId": "365F4154-92F6-4AE4-92F8-7FF34B540710",
  "LoadBalancerId": "139a00604ad-cn-ea*****",
  "BackendServers": {
    "BackendServer": [
      {
        "ServerId": "eni-hg231**",
        "Weight": "100",
        "Type": "eni"
      },
      {
        "ServerId": "eni-hhshhs****",
        "Weight": "100",
        "Type": "eni"
      }
    ]
  }
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

12.2. AddBackendServers

Adds backend servers.

 **Note** If multiple identical Elastic Compute Service (ECS) instances are specified in a request, only the first ECS instance is added. The other ECS instances are ignored. If the backend server that you add is identical to one of the existing backend servers that are associated with a listener, an error is reported.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	AddBackendServers	The operation that you want to perform. Set the value to AddBackendServers .
LoadBalancerId	String	Yes	lb-2ze7o5h52g02kkz*****	The ID of the Server Load Balancer (SLB) instance.
RegionId	String	Yes	cn-beijing	The ID of the region where the SLB instance is deployed. You can call the DescribeRegions operation to query the most recent region list.
				The list of backend servers that you want to add. Set the following parameters: • ServerId: This parameter is required and the value uses the String type. Enter the ID of the instance that serves as the backend server. If ServerId is set to the ID of an elastic network interface (ENI), Type is required. • Weight: The weight of the backend server. Valid values: 0 to 100. Default value: 100. If the value is set to 0, no requests are forwarded to the backend server. • Description: Optional. Specify the description of the backend server. This parameter must be of the String type. The description must be 1 to 80 characters in length, and can contain letters, digits, hyphens (-), forward slashes (/), periods (.), and underscores (_). • Type: The type of backend server. Valid values: ◦ ecs: an ECS instance. This is the default value. ◦ eni: an ENI. <pre>{ "ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168.**.**", </pre>

Parameter	Type	Required	Example	Description
BackendServers	String	Yes	<pre>{ "Port": "80", "Description": "test-112" }, { "ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "172.166.**.**", "Port": "80", "Description": "test-113" }</pre>	Note You can specify ENIs as the backend servers of only high-performance instances. ServerIp: The IP address of the ECS instance or ENI. Examples: - Associate an ECS instance: <pre>[{ "ServerId": "i-xxxxxxx", "Weight": "100", "Type": "ecs", "Port": "80", "Description": "test-112" }]</pre> - Associate an ENI: <pre>[{ "ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168.**.**", "Port": "80", "Description": "test-112" }]</pre> - Associate an ENI with multiple IP addresses: <pre>[{ "ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168.**.**", "Port": "80", "Description": "test-112" }, { "ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "172.166.**.**", "Port": "80", "Description": "test-113" }]</pre> Note The backend servers that you add to an SLB instance must be in the Running state. You can add up to 20 backend servers to an SLB instance in each request.

Response parameters

Parameter	Type	Example	Description
LoadBalancerId	String	lb-2ze7o5h52g02kkzz**	The ID of the SLB instance.
BackendServers	Array of BackendServer		The list of backend servers.
BackendServer			
ServerId	String	i-2zej4lxhjoq1icu*****	The ID of the ECS instance or ENI.

Parameter	Type	Example	Description
Weight	String	100	The weight of the backend server. Valid values: 0 to 100 . Default value: 100 . If the value is set to 0 , the SLB instance does not forward requests to the backend server.
Description	String	BackendServer	The description of the backend server.
Type	String	ecs	The type of the backend server. ecs: an ECS instance. This is the default value. eni: an ENI.
RequestId	String	34B82C81-F13B-4EEB-99F6-A048C67CC830	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=AddBackendServers
&RegionId=cn-hangzhou
&LoadBalancerId=lb-2ze7o5h52g02kkzz*****
&BackendServers=[{ "ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "1
92.168.**.*", "Port": "80", "Description": "test-112" }, { "ServerId": "eni-xxxxxxx", "Weight":
"100", "Type": "eni", "ServerIp": "172.166.**.*", "Port": "80", "Description": "test-113" }]
&<Common request parameters>
```

Sample success responses

XML format

```
<AddBackendServersResponse>
  <BackendServers>
    <BackendServer>
      <ServerId>i-2zej4lxbjoq1icu*****</ServerId>
      <Weight>100</Weight>
      <Type>ecs</Type>
    </BackendServer>
    <BackendServer>
      <ServerId>i-2zelu9ywulp5pbv*****</ServerId>
      <Weight>100</Weight>
      <Type>ecs</Type>
    </BackendServer>
  </BackendServers>
  <RequestId>34B82C81-F13B-4EEB-99F6-A048C67CC830</RequestId>
  <LoadBalancerId>lb-2ze7o5h52g02kkzz*****</LoadBalancerId>
</AddBackendServersResponse>
```

JSON format

```
{
  "RequestId": "34B82C81-F13B-4EEB-99F6-A048C67CC830",
  "BackendServers": {
    "BackendServer": [
      {
        "ServerId": "i-2zej4lxhjoqlcue****",
        "Weight": 100,
        "Type": "ecs"
      },
      {
        "ServerId": "i-2ze1u9ywulp5pbvv****",
        "Weight": 100,
        "Type": "ecs"
      }
    ]
  },
  "LoadBalancerId": "lb-2ze7o5h52g02kkzze****"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidParameter	The specified load balancer does not support the network type of the ECS instance.	The error message returned because the SLB instance does not support ECS instances of the specified type. Change the type and try again.

For a list of error codes, visit the [API Error Center](#).

12.3. RemoveBackendServers

You can call this operation to remove backend servers.

Note If the backend servers are not included in the server list of the specified SLB instance, they cannot be deleted and no error is returned.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
-----------	------	----------	---------	-------------

Parameter	Type	Required	Example	Description
Action	String	Yes	RemoveBackendServers	The operation that you want to perform. Set the value to RemoveBackendServers .
BackendServers	String	Yes	<pre>[{"ServerId": "i-2zej4lxhjoq***", "Type": "ecs", "Weight": "100"}]</pre>	The backend servers to be removed. Valid values: • ServerId: The instance ID of a backend server that is an ECS instance ID. This parameter is required and must be set to a string. • Weight: The weight of the backend server. This parameter must be set to an integer. Valid values: 0 to 100. • Type: The type of the backend server. Valid values: ◦ ecs: ECS instance. This is the default value. ◦ eni: Elastic Network Interface (ENI).  Note You can add up to 20 backend servers in each call. Examples: • Remove an ECS instance: <pre>[{"ServerId": "i-2zej4lxhjoq***", "Type": "ecs", "Weight": "100"}]</pre> • Remove an ENI: <pre>[{"ServerId": "eni-2zelsdp5***", "Type": "eni", "Weight": "100"}]</pre>
LoadBalancerId	String	Yes	lb-bp1qjwo61pqz3ahl*****	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The region ID of the SLB instance.

Response parameters

Parameter	Type	Example	Description
LoadBalancerId	String	lb-bp1vjkb671z53*****	The ID of the SLB instance.
BackendServers	Array		The list of backend servers.

Parameter	Type	Example	Description
BackendServer			
Description	String	Backend servers	The description of the backend server group.
ServerId	String	i-jjgjjgggd*****	The instance ID of the backend server.
Type	String	ecs	The type of the backend server. Valid values: • ecs: ECS instance. This is the default value. • eni: Elastic Network Interface (ENI).
Weight	Integer	100	The weight of the backend server. Valid values: 0 to 100 .
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=RemoveBackendServers
&BackendServers=[{"ServerId":"i-2zej4lxhjoq****", "Type": "ecs", "Weight": "100"}]
&LoadBalancerId=lb-bp1qjwo6lpqz3ahl*****
&<Common request parameters>
```

Sample success responses

XML format

```
<RemoveBackendServers>
  <RequestId>365F4154-92F6-4AE4-92F8-7FF34B540710</RequestId>
  <LoadBalancerId>lb-bp1vjkb671z53cy*****</LoadBalancerId>
  <BackendServers>
    <BackendServer>
      <ServerId>i-jjgjjgg*****</ServerId>
      <Weight>100</Weight>
    </BackendServer>
    <BackendServer>
      <ServerId>i-jjgjjgituitu*****</ServerId>
      <Weight>100</Weight>
    </BackendServer>
  </BackendServers>
</RemoveBackendServers>
```

JSON format

```
{
  "RequestId": "365F4154-92F6-4AE4-92F8-7FF34B540710",
  "LoadBalancerId": "lb-bp1vjkb671z53cy*****",
  "BackendServers": {
    "BackendServer": [
      {
        "ServerId": "i-jjggjgg*****",
        "Weight": 100
      },
      {
        "ServerId": "i-jjggjituitu*****",
        "Weight": 100
      }
    ]
  }
}
```

Error code

For a list of error codes, visit the [API Error Center](#).

12.4. DescribeHealthStatus

Queries the health status of backend servers.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeHealthStatus	The operation that you want to perform. Set the value to DescribeHealthStatus .
LoadBalancerId	String	Yes	lb-bp1qjwo61pqz3ah*****	The ID of the Classic Load Balancer (CLB) instance.
ListenerPort	Integer	No	80	The frontend port that is used by the CLB instance. Valid values: 1 to 65535. Note If you do not specify this parameter, the health status of all ports is returned.

Parameter	Type	Required	Example	Description
ListenerProtocol	String	No	https	The frontend protocol that is used by the CLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the CLB instance is deployed.

Response parameters

Parameter	Type	Example	Description
BackendServers	Array of BackendServer		The list of backend servers.
BackendServer			
ServerId	String	i-bp1h5u3fv54ytf*****	The ID of the Elastic Compute Service (ECS) instance or elastic network interface (ENI).
ServerHealthStatus	String	abnormal	The health status of the backend server: normal: The backend server is healthy. abnormal: The backend server is unhealthy. unavailable: The health check is not completed.
ListenerPort	Integer	80	The frontend port that is used by the CLB instance.
Port	Integer	70	The backend port that is used by the CLB instance.
Protocol	String	https	The frontend protocol that is used by the CLB instance.
ServerIp	String	192.XX.XX.11	The IP address of the ECS instance.
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DescribeHealthStatus
&LoadBalancerId=lb-bp1qjwo61pqz3ah*****
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeHealthStatusResponse>
  <RequestId>E69BA4CE-2B55-45EC-94CA-E47B16759459</RequestId>
  <BackendServers>
    <BackendServer>
      <ListenerPort>80</ListenerPort>
      <ServerId>i-bp1h5u3fv54ytf0*****</ServerId>
      <Port>80</Port>
      <ServerIp>192.168.0. **</ServerIp>
      <ServerHealthStatus>abnormal</ServerHealthStatus>
      <Protocol>http</Protocol>
    </BackendServer>
    <BackendServer>
      <ListenerPort>8080</ListenerPort>
      <ServerId>i-bp1h5u3fv54ytf0*****</ServerId>
      <Port>80</Port>
      <ServerIp>192.168.0. **</ServerIp>
      <ServerHealthStatus>abnormal</ServerHealthStatus>
      <Protocol>tcp</Protocol>
    </BackendServer>
  </BackendServers>
</DescribeHealthStatusResponse>
```

JSON format

```
{
  "RequestId": "E69BA4CE-2B55-45EC-94CA-E47B16759459",
  "BackendServers": {
    "BackendServer": [
      {
        "ListenerPort": 80,
        "ServerId": "i-bplh5u3fv54ytf*****",
        "Port": 80,
        "ServerIp": "192.168. **. **",
        "ServerHealthStatus": "abnormal",
        "Protocol": "http"
      },
      {
        "ListenerPort": 8080,
        "ServerId": "i-bplh5u3fv54ytf0*****",
        "Port": 80,
        "ServerIp": "192.168. **. **",
        "ServerHealthStatus": "abnormal",
        "Protocol": "tcp"
      }
    ]
  }
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

13.vServer groups

13.1. DescribeVServerGroupAttribute

Queries detailed information about a vServer group.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeVServerGroupAttribute	The operation that you want to perform. Set the value to DescribeVServerGroupAttribute .
RegionId	String	Yes	cn-hangzhou	The ID of the region where the Classic Load Balancer (CLB) instance is deployed.
VServerGroupId	String	Yes	rsp-cige6****	The ID of the vServer group.

Response parameters

Parameter	Type	Example	Description
VServerGroupId	String	rsp-cige6****	The ID of the vServer group.
VServerGroupName	String	Group1	The name of the vServer group.
BackendServers	Array of BackendServer	N/A	The list of backend servers.
BackendServer	N/A	N/A	N/A
ServerId	String	vm-233	The ID of the Elastic Compute Service (ECS) instance.
Port	Integer	90	The port that is used by the backend server.

Parameter	Type	Example	Description
Weight	Integer	100	The weight of the backend server.
Description	String	vServerGroupDescription	The description of the vServer group.
Type	String	ecs	The type of backend server. Valid values: • ecs: an ECS instance. This is the default value. • eni: an elastic network interface (ENI).
LoadBalancerId	String	lb-jfakd****	The ID of the CLB instance.
RequestId	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeVServerGroupAttribute
&RegionId=cn-hangzhou
&VServerGroupId=rsp-cige6****
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeVServerGroupAttributeResponse>
  <RequestId>9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C</RequestId>
  <VServerGroupId>rsp-cige6****</VServerGroupId>
  <VServerGroupName>Group1</VServerGroupName>
  <BackendServers>
    <BackendServer>
      <ServerId>vm-232</ServerId>
      <Port>80</Port>
      <Weight>100</Weight>
    </BackendServer>
    <BackendServer>
      <ServerId>vm-233</ServerId>
      <Port>90</Port>
      <Weight>100</Weight>
    </BackendServer>
  </BackendServers>
</DescribeVServerGroupAttributeResponse>
```

JSON format

```
{
  "RequestId": "9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C",
  "VServerGroupId": "rsp-cige6*****",
  "VServerGroupName": "Group1",
  "BackendServers": {
    "BackendServer": [
      {
        "ServerId": "vm-233",
        "Port": "80",
        "Weight": "100"
      },
      {
        "ServerId": "vm-232",
        "Port": "90",
        "Weight": "100"
      }
    ]
  }
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

13.2. CreateVServerGroup

Creates a vServer group and adds backend servers to the vServer group.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateVServerGroup	The operation that you want to perform. Set the value to CreateVServerGroup .
LoadBalancerId	String	Yes	lb-bp1qjwo61pqz3ahl*****	The ID of the Server Load Balancer (SLB) instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SLB instance is deployed.

Parameter	Type	Required	Example	Description
VServerGroupName	String	No	Group1	The name of the vServer group. The name must be 1 to 80 characters in length, and can contain letters, digits, hyphens (-), forward slashes (/), periods (.), and underscores (_).
BackendServers	String	No	<pre>[{"ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168.**.**", "Port": "80", "Description": "test-112"}, {"ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168.**.**", "Port": "80", "Description": "test-112"}]</pre>	The list of backend servers to be added. The value of this parameter must be a STRING list in the JSON format. You can specify up to 20 elements in each request. • ServerId: Required. Specify the ID of an Elastic Compute Service (ECS) instance or an Elastic Network Interface (ENI). This parameter must be of the STRING type. • Port: Required. Specify the port that is used by the backend server. This parameter must be of the INTEGER type. Valid values: 1 to 65535. • Weight: Required. Specify the weight of the backend server. This parameter must be of the INTEGER type. Valid values: 0 to 100. • Description: Optional. Specify the description of the backend server. This parameter must be of the STRING type. The description must be 1 to 80 characters in length, and can contain letters, digits, hyphens (-), forward slashes (/), periods (.), and underscores (_). • Type: Specify the type of the backend server. This parameter must be of the STRING type. Valid values: ◦ ecs: an ECS instance. This is the default value. ◦ eni: an ENI. • ServerIp: The IP address of the ECS instance or ENI. Examples: • ECS instance: <pre>[{"ServerId": "i-xxxxxxx", "Weight": "100", "Type": "ecs", "Port": "80", "Description": "test-112"}]</pre> • ENI: <pre>[{"ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168.**.**"}]</pre>

Parameter	Type	Required	Example	Description
				<pre>"Port": "80", "Description": "test-112" } }</pre> ENI with multiple IP addresses: <pre>[{ "ServerId": "eni-xxxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168.**.**", "Port": "80", "Description": "test-112" }, { "ServerId": "eni-xxxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "172.166.**.**", "Port": "80", "Description": "test-113" }]</pre>

Response parameters

Parameter	Type	Example	Description
VServerGroupId	String	rsp-cige6*****	The ID of the vServer group.
BackendServers	Array of BackendServer		The list of backend servers.
BackendServer			
ServerId	String	vm-2****	The ID of the ECS instance or ENI.
Port	Integer	70	The port that is used by the backend server.
Weight	Integer	100	The weight of the backend server.
Description	String	vServerGroup	The description of the vServer group.
Type	String	Type	The type of the backend server. Valid values: ecs: an ECS instance. This is the default value. eni: an ENI.
RequestId	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateVServerGroup
&LoadBalancerId=lb-bp1qjwo61pqz3ahl*****
&RegionId=cn-hangzhou
&BackendServers= [{ "ServerId": "eni-xxxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "
192.168.**.*", "Port": "80", "Description": "test-112" }, { "ServerId": "eni-xxxxxxxx", "Weigh
t": "100", "Type": "eni", "ServerIp": "192.168.**.*", "Port": "80", "Description": "test-112" }
]
&<Common request parameters>
```

Sample success responses

XML **format**

```
<CreateVServerGroupResponse>
  <VServerGroupId>rsp-bpli4c*****</VServerGroupId>
  <RequestId>3EBBDBAE-8E8B-438F-A109-95C2FDB2C333</RequestId>
  <BackendServers>
    <BackendServer>
      <Type>ecs</Type>
      <ServerId>i-bp1ds2yjl66*****</ServerId>
      <Description>test-11244</Description>
      <Port>80</Port>
      <Weight>100</Weight>
    </BackendServer>
  </BackendServers>
</CreateVServerGroupResponse>
```

JSON **format**

```
{
  "VServerGroupId": "rsp-bpli4c3*****",
  "RequestId": "3EBBDBAE-8E8B-438F-A109-95C2FDB2C333",
  "BackendServers": {
    "BackendServer": [
      {
        "Type": "ecs",
        "ServerId": "i-bp1ds2yjl66*****",
        "Description": "test-11244",
        "Port": 80,
        "Weight": 100
      }
    ]
  }
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

13.3. AddVServerGroupBackendServers

Adds backend servers to a specified server group.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	AddVServerGroupBackendServers	The operation that you want to perform. Set the value to AddVServerGroupBackendServers.
BackendServers	String	Yes	<pre>[{ "ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168. **. **", "Port": "80", "Description": "test-112" },{ "ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "172.166. **. **", "Port": "80", "Description": "test-113" }]</pre>	The list of backend servers. You can specify up to 20 backend servers in each request. The following parameters are used to specify the backend servers: • ServerId: The ID of the backend server. You can specify the ID of an Elastic Compute Service (ECS) instance or an elastic network interface (ENI). • Port: Required. The port that is used by the backend server. Valid values: 1 to 65535. • Weight: The weight of the backend server. Valid values: 0 to 100. Default value: 100. If the value is set to 0, no requests are forwarded to the backend server. • Type: The type of backend server. Valid values: ◦ ecs: an ECS instance. This is the default value. ◦ eni: an ENI. • Description: Optional. The description of the backend server. This parameter is of the STRING type. The description must be 1 to 80 characters in length, and can contain letters, digits, hyphens (-), forward slashes (/), periods (.), and underscores (_). • ServerIp: The IP address of the ECS instance or ENI. Examples: • ECS instance: <pre>[{ "ServerId": "i-xxxxxxx", "Weight": "100", "Type": "ecs", "Port": "80", "Descr</pre>

Parameter	Type	Required	Example	Description
				<pre> "Description": "test-112" }]. </pre> • ENI: <pre> [{"ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168. **. **", "Port": "80", "Description": "test-112" }] </pre> • ENI with multiple IP addresses: <pre> [{"ServerId": "eni-xxxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168. **. **", "Port": "80", "Description": "test-112"}, {"ServerId": "eni-xxxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "172.166. **. **", "Port": "80", "Description": "test-113" }] </pre>
RegionId	String	Yes	cn-hangzhou	The ID of the region where the Classic Load Balancer (CLB) instance is created.
VServerGroupId	String	Yes	rsp-cige6*****	The ID of the server group.

Response parameters

Parameter	Type	Example	Description
VServerGroupId	String	rsp-cige6j*****	The ID of the server group.
BackendServers	Array of BackendServer		The list of backend servers.
BackendServer			
ServerId	String	vm-231	The ID of the ECS instance or ENI.
Port	Integer	70	The port that is used by the backend server.
Weight	Integer	100	The weight of the backend server.
Description	String	ServerGroup	The description of the server group.
Type	String	ecs	The type of backend server. Valid values: • ecs: an ECS instance. This is the default value. • eni: an ENI.

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

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=AddVServerGroupBackendServers
&BackendServers=[{ "ServerId": "eni-xxxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "1
92.168. **. **", "Port": "80", "Description": "test-112" }, { "ServerId": "eni-xxxxxxxx", "Weight
": "100", "Type": "eni", "ServerIp": "172.166. **. **", "Port": "80", "Description": "test-113" }
]
&RegionId=cn-hangzhou
&VServerGroupId=rsp-cige6*****
&<Common request parameters>
```

Sample success responses

XML format

```
<AddVServerGroupBackendServersResponse>
  <RequestId>9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C</RequestId>
  <VServerGroupId>rsp-cige6*****</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>
    <BackendServer>
      <ServerId>vm-231</ServerId>
      <Port>70</Port>
      <Weight>100</Weight>
    </BackendServer>
  </BackendServers>
</AddVServerGroupBackendServersResponse>
```

JSON format

```
{
  "AddVServerGroupBackendServers": {
    "RequestId": "9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C",
    "VServerGroupId": "rsp-cige6j*****",
    "BackendServers": {
      "BackendServer": [
        {
          "ServerId": "vm-233",
          "Port": "80",
          "Weight": "100"
        },
        {
          "ServerId": "vm-232",
          "Port": "90",
          "Weight": "100"
        },
        {
          "ServerId": "vm-231",
          "Port": "70",
          "Weight": "100"
        }
      ]
    }
  }
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

13.4. SetVServerGroupAttribute

Modifies the configurations of a vServer group.

This operation allows you to modify only the name of a vServer group and the weights of the backend servers in the vServer group.

- If you want to modify backend servers in a specified vServer group, call the [ModifyVServerGroupBackendServers](#) operation.
- If you want to add backend servers to a specified vServer group, call the [AddVServerGroupBackendServers](#) operation.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
-----------	------	----------	---------	-------------

Parameter	Type	Required	Example	Description
Action	String	Yes	SetVServerGroupAttribute	The operation that you want to perform. Set the value to SetVServerGroupAttribute .
RegionId	String	Yes	cn-hangzhou	The ID of the region where the Classic Load Balancer (CLB) instance is deployed. This parameter cannot be modified.
VServerGroupId	String	Yes	rsp-cige6****	The ID of the vServer group. This parameter cannot be modified.
VServerGroupName	String	No	Group1	The name of the vServer group. You can specify a custom name for the vServer group.
BackendServers	String	No	<pre>[{"ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.XX.XX.6", "Port": "80", "Description": "test-112"}, {"ServerId": "eni-xxxxxxx", "Weight": "100",</pre>	The list of backend servers in the vServer group. You can specify at most 20 backend servers for a vServer group in each call. • ServerId: required. The ID of the Elastic Compute Service (ECS) instance or elastic network interface (ENI) that serves as a backend server. This parameter must be of the STRING type. • Port: required. The port that is used by the backend server. This parameter must be of the INTEGER type. Valid values: 1 to 65535. • Weight: required. The weight of the backend server. This parameter must be of the INTEGER type. You can modify this parameter. Valid values: 0 to 100. • Description: optional. The description of the backend server. This parameter must be of the STRING type. You can modify this parameter. The description must be 1 to 80 characters in length, and can contain letters, digits, hyphens (-), forward slashes (/), periods (.), and underscores (_). • Type: the type of backend server. This parameter must be of the STRING type. Valid values:

Parameter	Type	Required	Type: "eni", Example: "ServerIp": "172.XX.XX.6", "Port": "80", "Description": "test-113" }	Description
				- ecs: an ECS instance. This is the default value. - eni: an ENI. ServerIp: the IP address of the ECS instance or ENI. Examples: - An ECS instance: <pre>[{ "ServerId": "i-xxxxxxxx", "Weight": "100", "Type": "ecs", "Port": "80", "Description": "test-112" }]</pre> - An ENI: <pre>[{ "ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168.**.*", "Port": "80", "Description": "test-112" }]</pre> - An ENI with multiple IP addresses: <pre>[{ "ServerId": "eni-xxxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168.**.*", "Port": "80", "Description": "test-112" }, { "ServerId": "eni-xxxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "172.166.**.*", "Port": "80", "Description": "test-113" }]</pre>

Response parameters

Parameter	Type	Example	Description
VServerGroupId	String	rsp-cige6****	The ID of the vServer group.
VServerGroupName	String	Group1	The name of the vServer group.
BackendServers	Array of BackendServer	N/A	The list of backend servers.
BackendServer	N/A	N/A	N/A
ServerId	String	i-bp1ek6yd7jvkx****	The ID of the ECS instance or ENI.
Port	Integer	70	The port that is used by the backend server.
Weight	Integer	100	The weight of the backend server.
Description	String	vServerGroupDescription	The description of the vServer group.

Parameter	Type	Example	Description
Type	String	ecs	The type of backend server. Valid values: • ecs: an ECS instance • eni: an ENI
RequestId	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=SetVServerGroupAttribute
&RegionId=cn-hangzhou
&VServerGroupId=rsp-cige6****
&<Common request parameters>
```

Sample success responses

XML **format**

```
<CreateLoadBalancerTCPListener>
  <VServerGroupId>rsp-cige6****</VServerGroupId>
  <RequestId>9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C</RequestId>
  <VServerGroupName>Group1</VServerGroupName>
  <BackendServers>
    <BackendServer>
      <Type>ecs</Type>
      <Description>vServerGroupDescription </Description>
      <ServerId>i-bplek6yd7jvkx****</ServerId>
      <Port>70</Port>
      <Weight>100</Weight>
    </BackendServer>
  </BackendServers>
</CreateLoadBalancerTCPListener>
```

JSON **format**

```
{
  "VServerGroupId": "rsp-cige6****",
  "RequestId": "9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C",
  "VServerGroupName": "Group1",
  "BackendServers": {
    "BackendServer": {
      "Type": "ecs",
      "Description": "vServerGroupDescription",
      "ServerId": "i-bplek6yd7jvkx****",
      "Port": 70,
      "Weight": 100
    }
  }
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

13.5. RemoveVServerGroupBackendServers

Removes a backend server from a specified vServer group.

 **Note** If one or more backend servers specified by `BackendServers` do not exist in the vServer group, the backend servers are ignored and no error message is returned.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	RemoveVServerGroupBackendServers	The operation that you want to perform. Set the value to RemoveVServerGroupBackendServers .

Parameter	Type	Required	Example	Description
BackendServers	String	Yes	<pre>[{"ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168.**.**", "Port": "80", "Description": "test-112"}, {"ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "172.166.**.**", "Port": "80", "Description": "test-113"}]</pre>	The list of backend servers that you want to remove from the vServer group. A vServer group can contain a maximum of 20 backend servers in each request. The value of this parameter is a JSON list of the String type. You can specify up to 20 elements in a list for each request. • ServerId: Required. Specify the ID of an Elastic Compute Service (ECS) instance or elastic network interface (ENI). This parameter is of the String type. • Port: the port that is used by the backend server. This parameter is required and must be set to an integer. Valid values: 1 to 65535. • Weight: the weight of the backend server. This parameter is required and must be set to an integer. Valid values: 0 to 100. • Description: the description of the backend server. This parameter is optional and must be set to a string. The description must be 1 to 80 characters in length and can contain letters, digits, hyphens (-), forward slashes (/), periods (.), and underscores (_). • Type: Specify the type of the backend server. This parameter must be of the String type. Valid values: ◦ ecs: An ECS instance. This is the default value. ◦ eni: an ENI. • ServerIp: The IP address of the ECS instance or ENI.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SLB instance is deployed.
VServerGroupId	String	Yes	rsp-cige6****	The ID of the backend server group.

Parameter	Type	Required	Example	Description
ClientToken	String	No	5A2CFF0E-5718-45B5-9D4D-70B3FF****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must ensure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.

Response parameters

Parameter	Type	Example	Description
VServerGroupId	String	rsp-cige6j****	The ID of the server group.
BackendServers	Array of BackendServer		The list of backend servers.
BackendServer			
ServerId	String	vm-230	The ID of the ECS instance or ENI.
Port	Integer	80	The port that is used by the backend server.
Weight	Integer	100	The weight of the backend server.
Type	String	ecs	Type: the type of backend server. Valid values: - ecs: an ECS instance. This is the default value. - eni: an ENI.
RequestId	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=RemoveVServerGroupBackendServers
&BackendServers=[{ "ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "1
92.168.**.**", "Port": "80", "Description": "test-112" }, { "ServerId": "eni-xxxxxxx", "Weight":
"100", "Type": "eni", "ServerIp": "172.166.**.**", "Port": "80", "Description": "test-113" }]
&RegionId=cn-hangzhou
&VServerGroupId=rsp-cige6j****
&<Common request parameters>
```

Sample success responses

XML format

```
<RemoveVServerGroupBackendServersResponse>
  <RequestId>9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C</RequestId>
  <VServerGroupId>rsp-cige6*****</VServerGroupId>
  <BackendServers>
    <BackendServer>
      <ServerId>vm-231</ServerId>
      <Port>70</Port>
      <Weight>100</Weight>
      <Type>ecs</Type>
    </BackendServer>
  </BackendServers>
</RemoveVServerGroupBackendServersResponse>
```

JSON format

```
{
  "RemoveVServerGroupBackendServersResponse": {
    "RequestId": "9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C",
    "VServerGroupId": "rsp-cige6*****",
    "BackendServers": {
      "BackendServer": {
        "ServerId": "vm-231",
        "Port": "70",
        "Weight": "100",
        "Type": "ecs"
      }
    }
  }
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

13.6. ModifyVServerGroupBackendServers

Replaces backend servers in a specified VServer group.

You can call this operation to replace the backend servers in the specified VServer group. If you want to modify the configuration of the backend servers, such as their weights, see [SetVServerGroupAttribute](#).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ModifyVServerGroupBackendServers	The operation that you want to perform. Set the value to ModifyVServerGroupBackendServers.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SLB instance is created.
VServerGroupId	String	Yes	rsp-cige6j*****	The ID of the VServer group.
OldBackendServers	String	No	<pre>[{"ServerId": "i-xxxxxxx", "Weight": "100", "Type": "ecs", "Port": "80", "Description": "test-112"}]</pre>	The list of backend servers to be replaced. The value of this parameter is a JSON string with a JSON List structure. You can specify up to 20 elements in a list in a request. • ServerId: the instance ID of the backend server. This parameter is required and must be set to a string. • Port: the port that is used by the backend server. This parameter is required and must be set to an integer. Valid values: 1 to 65535. • Weight: the weight of the backend server. This parameter is required and must be set to an integer. Valid values: 0 to 100. • Description: the description of the backend server. This parameter is optional. The description must be a string. The description must be 1 to 80 characters in length and can contain letters, digits, hyphens (-), forward slashes (/), periods (.), and underscores (_). • Type: the instance type of the backend server. This parameter must be set to a string. Valid values: ◦ ecs: Elastic Compute Service (ECS) instance. This is the default value. ◦ eni: elastic network interface (ENI). • ServerIp: the IP address of an ECS instance or ENI. Examples: • ECS instance: <pre>[{"ServerId": "i-xxxxxxx", "Weight": "100", "Ty</pre>

Parameter	Type	Required	Example	Description
				<pre>pe": "ecs", "Port": "80", "Description": "test-112" }].</pre> • ENI: <pre>[{ "ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168. **. **", "Port": "80", "Description": "test-112" }]</pre> • ENI with multiple IP addresses: <pre>[{ "ServerId": "eni-xxxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168. **. **", "Port": "80", "Description": "test-112" }, { "ServerId": "eni-xxxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "172.166. **. **", "Port": "80", "Description": "test-113" }]</pre>
NewBackendServers	String	No	<pre>[{ "ServerId": "eni-xxxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168. **. **", "Port": "80", "Description": "test-112" }, { "ServerId": "eni-xxxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "172.166. **. **", "Port": "80", "Description": "test-113" }]</pre>	The list of new backend servers. You can specify a maximum of 20 backend servers for each VServer group in each call. The value of this parameter is a JSON string with a JSON List structure. You can specify up to 20 elements in a list in a request. • ServerId: the instance ID of the backend server. This parameter is required and must be set to a string. • Port: the port that is used by the backend server. This parameter is required and must be set to an integer. Valid values: 1 to 65535. • Weight: the weight of the backend server. This parameter is required and must be set to an integer. Valid values: 0 to 100. • Description: the description of the backend server. This parameter is optional. The description must be a string and can contain letters, digits, hyphens (-), forward slashes (/), periods (.), and underscores (_). • Type: the instance type of the backend server. This parameter must be set to a string. Valid values: ◦ ecs: ECS instance. This is the default value. ◦ eni: ENI. • ServerIp: the IP address of an ECS instance or ENI.

Parameter	Type	Required	Example	Description
			<pre> { "ServerId": "test-113", "Weight": 100, "Type": "ecs", "Port": 80, "Description": "test-112" } </pre>	Examples: ECS instance: <pre>[{"ServerId": "i-xxxxxxx", "Weight": "100", "Type": "ecs", "Port": "80", "Description": "test-112"}]</pre> ENI: <pre>[{"ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168. **. **", "Port": "80", "Description": "test-112"}]</pre> ENI with multiple IP addresses: <pre>[{"ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168. **. **", "Port": "80", "Description": "test-112"}, {"ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "172.166. **. **", "Port": "80", "Description": "test-113"}]</pre>

Response parameters

Parameter	Type	Example	Description
VServerGroupId	String	rsp-cige6j*****	The ID of the VServer group.
BackendServers	Array		The list of backend servers.
BackendServer			
ServerId	String	vm-236	The ID of the ECS instance or ENI.
Port	Integer	70	The port that is used by the backend server.
Weight	Integer	100	The weight of the backend server.
Description	String	The description of the backend server.	The description of the backend server.
Type	String	ecs	Type: the type of the backend server. Valid values: ecs: ECS instance. This is the default value. eni: ENI.

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

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=ModifyVServerGroupBackendServers
&RegionId=cn-hangzhou
&VServerGroupId=rsp-cige6j*****
&<Common request parameters>
```

Sample success responses

XML format

```
<ModifyVServerGroupBackendServersResponse>
  <RequestId>9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C</RequestId>
  <VServerGroupId>rsp-cige6j*****</VServerGroupId>
  <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": {
    "RequestId": "9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C",
    "VServerGroupId": "rsp-cige6j*****",
    "BackendServers": {
      "BackendServer": [
        {
          "ServerId": "vm-400",
          "Port": "80",
          "Weight": "100"
        },
        {
          "ServerId": "vm-401",
          "Port": "90",
          "Weight": "100"
        }
      ]
    }
  }
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

13.7. DeleteVServerGroup

Deletes a VServer group.

Make the API call

You can use [OpenAPI Explorer](#) to make API calls, search for API calls, perform debugging, and generate SDK example code.

Request parameters

Parameter	Type	Required ?	Example value	Description
Action	String	Yes	DeleteVServerGroup	The name of this action. Value: DeleteVServerGroup
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the associated Server Load Balancer (SLB) instance belongs.

Parameter	Type	Required ?	Example value	Description
VServerGroupId	String	Yes	rsp-cige6j*****	The ID of the VServer group to be deleted.  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-cige6j*****
&<CommonParameters>
```

Response example

JSON format

```
{
  "RequestId": "9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C"
}
```

XML format

```
<DeleteVServerGroupResponse>
  <RequestId>9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C</RequestId>
</DeleteVServerGroupResponse>
```

Errors

For a list of error codes, visit the [API Error Center](#).

13.8. DescribeVServerGroups

Queries the list of VServer groups.

Make the API call

You can use OpenAPI Explorer to make API calls, search for API calls, perform debugging, and generate SDK example code.

Request parameters

Parameter	Type	Required ?	Example value	Description
Action	String	Yes	DescribeVServerGroups	The name of this action. Value: DescribeVServerGroups
LoadBalancerId	String	Yes	lb-bp1o94dp5i6ea****	The ID of the Server Load Balancer (SLB) instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the SLB instance belongs.
IncludeRule	Boolean	No	false	Indicates whether to return the information of forwarding rules associated with the VServer groups. Default value: false
IncludeListener	Boolean	No	false	Indicates whether to return the information of listeners associated with the VServer groups. Default value: false

Response parameters

Parameter	Type	Example value	Description
RequestId	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.
VServerGroups	Array		The list of VServer groups.
VServerGroupId	String	rsp-0bfucwuotx	The ID of the VServer group.
VServerGroupName	String	Group3	The name of the VServer group.
AssociatedObjects	Struct		The information of associated resources.
Listeners	Array		The list of associated listeners.

Parameter	Type	Example value	Description
Protocol	String	tcp	The protocol used by the listener.
Port	Integer	80	The port used by the listener.
Rules	Array		The list of associated forwarding rules.
RuleId	String	123	The ID of the forwarding rule.
Domain	String	www.example.com	The domain name specified in the forwarding rule.
Url	String	/example	The URL specified in the forwarding rule.
RuleName	String	test	The name of the forwarding rule.

Examples

Request example

```
http(s)://[Endpoint]/? Action=DescribeVServerGroups
&LoadBalancerId=lb-bp1o94dp5i6ea*****
&RegionId=cn-hangzhou
&<CommonParameters>
```

Response example

`XML` `format`

```

<DescribeVServerGroupsResponse>
  <VServerGroups>
    <VServerGroup>
      <VServerGroupId>rsp-bp1oygn*****</VServerGroupId>
      <VServerGroupName>k8s/31065/nginx-ingress-lb/kube-system/clust****</VServerGroup
Name>
      <AssociatedObjects>
        <Listeners>
      </Listeners>
      <Rules>
    </Rules>
    </AssociatedObjects>
  </VServerGroup>
  <VServerGroup>
    <VServerGroupId>rsp-bp1i6sn*****</VServerGroupId>
    <VServerGroupName>k8s/31605/nginx-ingress-lb/kube-system/clusterid</VServerGroup
Name>
    <AssociatedObjects>
      <Listeners>
    </Listeners>
    <Rules>
  </Rules>
  </AssociatedObjects>
</VServerGroup>
<VServerGroup>
  <VServerGroupId>rsp-bp1f85n*****</VServerGroupId>
  <VServerGroupName>VSG1</VServerGroupName>
  <AssociatedObjects>
    <Listeners>
  </Listeners>
  <Rules>
</Rules>
</AssociatedObjects>
</VServerGroup>
</VServerGroups>
  <RequestId>31ADDBCD-275F-4C37-B0A3-5DFC8564E686</RequestId>
</DescribeVServerGroupsResponse>

```

JSON **format**

```

{
  "VServerGroups": {
    "VServerGroup": [
      {
        "VServerGroupId": "rsp-bploygn*****",
        "VServerGroupName": "k8s/31065/nginx-ingress-lb/kube-system/clust****",
        "AssociatedObjects": {
          "Listeners": {
            "Listener": []
          },
          "Rules": {
            "Rule": []
          }
        }
      },
      {
        "VServerGroupId": "rsp-bpli6sn*****",
        "VServerGroupName": "k8s/31605/nginx-ingress-lb/kube-system/clusterid",
        "AssociatedObjects": {
          "Listeners": {
            "Listener": []
          },
          "Rules": {
            "Rule": []
          }
        }
      },
      {
        "VServerGroupId": "rsp-bplf85n*****",
        "VServerGroupName": "VSG1",
        "AssociatedObjects": {
          "Listeners": {
            "Listener": []
          },
          "Rules": {
            "Rule": []
          }
        }
      }
    ]
  },
  "RequestId": "31ADDBCD-275F-4C37-B0A3-5DFC8564E686"
}

```

Errors

For a list of error codes, visit the [API Error Center](#).

14.Active/standby server groups

14.1. CreateMasterSlaveServerGroup

Creates a primary/secondary server group. A primary/secondary server group can contain only two Elastic Compute Service (ECS) instances: one of the ECS instances functions as the primary server and the other functions as the secondary server.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameter

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateMasterSlaveServerGroup	The operation that you want to perform. Set the value to CreateMasterSlaveServerGroup .
LoadBalancerId	String	Yes	lb-bp1hv944r69al4j****	The ID of the Classic Load Balancer (CLB) instance.
				The list of backend servers in the primary/secondary server group. The value of this parameter must be a STRING list in the JSON format. You can specify up to 20 elements in each request. • ServerId: This parameter is required. Specify the ID of the backend server. This parameter must be of the STRING type. • Port: This parameter is required. Specify the port that is used by the backend server. This parameter must be of the INTEGER type. Valid values: 1 to 65535. • Weight: This parameter is required. Specify the weight of the backend server. This parameter must be of the INTEGER type. Valid values: 0 to 100. • Description: This parameter is optional. Specify the description of the backend server. This parameter must be of the STRING type. The description must be 1 to 80 characters in length, and can contain

Parameter	Type	Required	Example	Description
MasterSlaveBackendServers	String	Yes	<pre>[{ "ServerId": "i-xxxxxxx", "Weight": "100", "Type": "ecs", "Port": "82", "ServerType": "Master", "Description": "test-112" }, { "ServerId": "i-xxxxxxx", "Weight": "100", "Type": "ecs", "Port": "84", "ServerType": "Slave", "Description": "test-112" }]</pre>	letters, digits, hyphens (-), forward slashes (/), periods (.), and underscores (_). • ServerType: Specify the type of the backend server. This parameter must be of the STRING type. Valid values: ◦ Master: primary server ◦ Slave: secondary server • Type: Specify the type of backend server. This parameter must be of the STRING type. Valid values: ◦ ecs: an ECS instance ◦ eni: an elastic network interface (ENI) • ServerIp: the IP address of the ECS instance or ENI A primary/secondary server group can contain at most two backend servers. If you do not set this parameter, an empty primary/secondary server group is created. Examples: • ECS: <pre>[{ "ServerId": "i-xxxxxxx", "Weight": "100", "Type": "ecs", "Port": "82", "ServerType": "Master", "Description": "test-112" }, { "ServerId": "i-xxxxxxx", "Weight": "100", "Type": "ecs", "Port": "84", "ServerType": "Slave", "Description": "test-112" }]</pre> • ENI: <pre>[{ "ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "Port": "80", "ServerType": "Master", "Description": "test-112" }, { "ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168.**.*", "Port": "80", "ServerType": "Slave", "Description": "test-112" }]</pre> • ENI with multiple IP addresses: <pre>[{ "ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168.**.*", "Port": "80", "ServerType": "Master", "Description": "test-112" }, { "ServerId": "eni-xxxxxxx", "Weight": "100", "Type": "eni", "ServerIp": "192.168.**.*", "Port": "80", "ServerType": "Slave", "Description": "test-112" }]</pre>

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-hangzhou	The ID of the region where the CLB instance is deployed.
MasterSlaveServerGroupName	String	No	Group1	The name of the primary/secondary server group.

Response parameters

Parameter	Type	Example	Description
MasterSlaveServerGroupId	String	rsp-bp19au4*****	The ID of the primary/secondary server group.
MasterSlaveBackendServers	Array of MasterSlaveBackendServer		The list of backend servers in the primary/secondary server group.
MasterSlaveBackendServer			
ServerId	String	i-bp1fq61enf4loa5i****	The ID of the ECS instance or ENI that is added.
Port	Integer	82	The port number used by the backend server.
Weight	Integer	100	The weight of the backend server.
ServerType	String	Master	The type of the backend server. Valid values: Master and Slave .
Description	String	test-112	The description of the primary/secondary server group.
Type	String	ecs	The type of the backend server. Valid values: ecs: an ECS instance eni: an ENI
RequestId	String	7CA4DB76-4D32-523B-822E-5C9494613D46	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreateMasterSlaveServerGroup
&LoadBalancerId=lb-bp1hv944r69al4j*****
&MasterSlaveBackendServers=[{ "ServerId": "i-xxxxxxx", "Weight": "100", "Type": "ecs", "Port": "82", "ServerType": "Master", "Description": "test-112" }, { "ServerId": "i-xxxxxxx", "Weight": "100", "Type": "ecs", "Port": "84", "ServerType": "Slave", "Description": "test-112" }]
&RegionId=cn-hangzhou
&<Common request parameters>
```

Sample success responses

XML **format**

```
<CreateMasterSlaveServerGroupResponse>
  <RequestId>7CA4DB76-4D32-523B-822E-5C9494613D46</RequestId>
  <MasterSlaveServerGroupId>rsp-bp19au4*****</MasterSlaveServerGroupId>
  <MasterSlaveBackendServers>
    <MasterSlaveBackendServer>
      <ServerType>Master</ServerType>
      <Type>ecs</Type>
      <ServerId>i-bp1fq61enf4loa5i*****</ServerId>
      <Description>test-112</Description>
      <Port>82</Port>
      <Weight>100</Weight>
    </MasterSlaveBackendServer>
    <MasterSlaveBackendServer>
      <ServerType>Slave</ServerType>
      <Type>ecs</Type>
      <ServerId>i-bp10ephck4n5uehd*****</ServerId>
      <Description>test-112</Description>
      <Port>84</Port>
      <Weight>100</Weight>
    </MasterSlaveBackendServer>
  </MasterSlaveBackendServers>
</CreateMasterSlaveServerGroupResponse>
```

JSON **format**

```
{
  "RequestId": "7CA4DB76-4D32-523B-822E-5C9494613D46",
  "MasterSlaveServerGroupId": "rsp-bp19au4*****",
  "MasterSlaveBackendServers": {
    "MasterSlaveBackendServer": [
      {
        "ServerType": "Master",
        "Type": "ecs",
        "ServerId": "i-bplfq61enf4loa5i****",
        "Description": "test-112",
        "Port": 82,
        "Weight": 100
      },
      {
        "ServerType": "Slave",
        "Type": "ecs",
        "ServerId": "i-bp10ephck4n5uehd****",
        "Description": "test-112",
        "Port": 84,
        "Weight": 100
      }
    ]
  }
}
```

Error codes

HttpCode	Error code	Error message	Description
400	BACKEND_SERVERS_NUM_MUST_BE_TWO	Backend servers num must be 2.	The error message returned because two backend servers must be specified.
400	BACKEND_SERVERS_HAVE_SAME_PORT_AND_SERVERID	Backend servers have same port and serverId.	The error message returned because a backend server with the same port and ID is already specified in the server group.
400	BACKEND_SERVERS_CAN_ONLY_CONTAIN_ONE_MASTER_AND_ONE_SLAVE	Backend servers can only contain one master and one slave.	The error message returned because a primary/secondary server group can contain only one primary server and one secondary server.
400	BACKEND_SERVER_ID_CAN_NOT_EMPTY	Backend server id can not empty.	The error message returned because the ID of the backend server is not specified.
400	INVALID_SERVER_TYPE	Invalid server type.	The error message returned because the specified type of backend server is invalid.
400	BACKEND_SERVER_PORT_CAN_NOT_EMPTY	Backend server port can not empty.	The error message returned because the port of the backend server is not specified.

HttpCode	Error code	Error message	Description
400	RealServerPortNotSupported	Real server port not support.	The error message returned because the specified port of the backend server is invalid.
400	OperationUnsupported.CreateMasterSlaveServerGroup	This type of backend server is not allowed to be attached to singleTunnel or anyTunnel lb.	The error message returned because the backend server cannot be added to a CLB instance of the singleTunnel or anyTunnel type.
400	IncorrectStatus.RSByPassToas	%s.	The error message returned because the BypassToa parameter of the specified backend server is set to an invalid value.
400	OperationFailed.ActionNotSupport	The loadbalancer does not support such action.	The error message returned because the instance does not support the operation.
400	RsTunnelIp2VmNameConflict	%s.	The error message returned because a backend server uses the same TunnelId and Rslp configurations as an existing backend server.
400	NetworkConflict	%s.	The error message returned because the vServer group configurations are inconsistent with the ECS configurations.

For a list of error codes, visit the [API Error Center](#).

14.2. DeleteMasterSlaveServerGroup

Deletes an active/standby server group.

Make the API call

You can use OpenAPI Explorer to make API calls, search for API calls, perform debugging, and generate SDK example code.

Request parameters

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

Parameter	Type	Required ?	Example value	Description
MasterSlaveServerGroupId	String	Yes	rsp-cige6*****	The ID of the active/standby server group to be deleted.  Note An active/standby server group in use cannot be deleted.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the associated Server Load Balancer (SLB) instance belongs.
OwnerAccount	String	No		

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-cige6*****
&RegionId=cn-hangzhou
&<CommonParameters>
```

Response example

JSON format

```
{
  "RequestId": "9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C"
}
```

XML format

```
<DeleteMasterSlaveServerGroupResponse>
  <RequestId>9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C</RequestId>
</DeleteMasterSlaveServerGroupResponse>
```

Errors

For a list of error codes, visit the [API Error Center](#).

14.3.

DescribeMasterSlaveServerGroupAttribute

Queries detailed information about a primary/secondary server group.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeMasterSlaveServerGroupAttribute	The operation that you want to perform. Set the value to DescribeMasterSlaveServerGroupAttribute .
MasterSlaveServerGroupId	String	Yes	rsp-cige6j*****	The ID of the primary/secondary server group.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SLB instance is created.

Response parameters

Parameter	Type	Example	Description
MasterSlaveServerGroupId	String	rsp-cige6*****	The ID of the primary/secondary server group.
MasterSlaveServerGroupName	String	Group1	The name of the primary/secondary server group.
MasterSlaveBackendServers	Array		The list of backend servers in the primary/secondary server group.
MasterSlaveBackendServer			
ServerId	String	vm-hrf*****	The ID of the Elastic Compute Service (ECS) instance or elastic network interface (ENI).

Parameter	Type	Example	Description
Port	Integer	90	The port that is used by the backend server.
Weight	Integer	100	The weight of the backend server.
ServerType	String	Slave	The type of backend server. Valid values: Master and Slave . Default value: Master.
Description	String	The description of the primary/secondary server group.	The description of the primary/secondary server group.
Type	String	ecs	The type of backend server. Valid values: • ecs: ECS instance. This is the default value. • eni: ENI.
LoadBalancerId	String	lb-14fadafw4343a*****	The ID of the SLB instance.
RequestId	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.

Examples

Sample request

```
http(s)://[Endpoint]/? Action=DescribeMasterSlaveServerGroupAttribute
&MasterSlaveServerGroupId=rsb-cige6j*****
&RegionId=cn-hangzhou
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeMasterSlaveServerGroupAttributeResponse>
  <RequestId>9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C</RequestId>
  <MasterSlaveServerGroupId>rsp-cige6*****</MasterSlaveServerGroupId>
  <MasterSlaveBackendServers>
    <MasterSlaveBackendServers>
      <ServerId>vm-sshssh****</ServerId>
      <Port>80</Port>
      <Weight>100</Weight>
      <ServerType>Master</ServerType>
    </MasterSlaveBackendServers>
    <MasterSlaveBackendServers>
      <ServerId>vm-ffff*****</ServerId>
      <Port>90</Port>
      <Weight>100</Weight>
      <ServerType>Slave</ServerType>
    </MasterSlaveBackendServers>
  </MasterSlaveBackendServers>
</DescribeMasterSlaveServerGroupAttributeResponse>
```

JSON **format**

```
{
  "DescribeMasterSlaveServerGroupAttributeResponse": {
    "RequestId": "9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C",
    "MasterSlaveServerGroupId": "rsp-cige6*****",
    "MasterSlaveBackendServers": {
      "MasterSlaveBackendServers": [
        {
          "ServerId": "vm-sshssh****",
          "Port": "80",
          "Weight": "100",
          "ServerType": "Master"
        },
        {
          "ServerId": "vm-ffff*****",
          "Port": "90",
          "Weight": "100",
          "ServerType": "Slave"
        }
      ]
    }
  }
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

14.4. DescribeMasterSlaveServerGroups

Queries backend servers in a primary/secondary server group.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeMasterSlaveServerGroups	The operation that you want to perform. Set the value to DescribeMasterSlaveServerGroups .
LoadBalancerId	String	Yes	lb-bp14zi0n66zpg6o*****	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SLB instance is created.
IncludeListener	Boolean	No	false	Specifies whether to return the information of the associated listeners. Default value: false .

Response parameters

Parameter	Type	Example	Description
MasterSlaveServerGroups	Array		The list of backend servers in the primary/secondary server group.
MasterSlaveServerGroup			
MasterSlaveServerGroupId	String	rsp-0bfuc*****	The ID of the primary/secondary server group.
MasterSlaveServerGroupName	String	Group3	The name of the primary/secondary server group.
AssociatedObjects	Struct		The related information.
Listeners	Array		The list of listeners.
Listener			
Port	Integer	80	The listening port.

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

Examples

Sample request

```
http(s)://[Endpoint]/? Action=DescribeMasterSlaveServerGroups
&LoadBalancerId=lb-bp14zi0n66zpg6o*****
&RegionId=cn-hangzhou
&<Common request parameters>
```

Sample success responses

XML **format**

```
<DescribeMasterSlaveServerGroupsResponse>
  <RequestId>2631BB5E-B576-4925-BDED-07A66D23E5DE</RequestId>
  <MasterSlaveServerGroups>
    <MasterSlaveServerGroup>
      <MasterSlaveServerGroupId>rsp-bp1ro3mw*****</MasterSlaveServerGroupId>
      <MasterSlaveServerGroupName>test</MasterSlaveServerGroupName>
    </MasterSlaveServerGroup>
  </MasterSlaveServerGroups>
</DescribeMasterSlaveServerGroupsResponse>
```

JSON **format**

```
{
  "RequestId": "265989FE-136B-4D6A-B549-FD40E7",
  "MasterSlaveServerGroups": {
    "MasterSlaveServerGroup": [
      {
        "MasterSlaveServerGroupId": "rsp-bp1nly*****",
        "MasterSlaveServerGroupName": "Primary/secondary server group 1",
        "AssociatedObjects": {
          "Listeners": {
            "Listener": [ ]
          }
        }
      }
    ]
  }
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

15. Server certificate management

15.1. UploadServerCertificate

Uploads a server certificate.

You can upload only one server certificate and its private key in each request.

After a server certificate and its private key are uploaded, the fingerprints of all server certificates that belong to your account are returned.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	UploadServerCertificate	The operation that you want to perform. Set the value to UploadServerCertificate .
RegionId	String	Yes	cn-hangzhou	The ID of the region where the server certificate is created. You can call the DescribeRegions operation to query the region ID.
AliCloudCertificateId	String	No	730912673xxxxxx_15d97e7709a_71445759hr_7892****	The ID of the server certificate that is provided by Alibaba Cloud SSL Certificates Service. Note This parameter is required if you use a server certificate from Alibaba Cloud SSL Certificates Service.
AliCloudCertificateName	String	No	cloudcertificate***	The name of the server certificate that is provided by Alibaba Cloud SSL Certificates Service. Note This parameter is required if you use a server certificate from Alibaba Cloud SSL Certificates Service.

Parameter	Type	Required	Example	Description
AliCloudCertificateRegionId	String	No	cn-hangzhou	The ID of the region where the server certificate from Alibaba Cloud SSL Certificates Service is created.
ServerCertificate	String	No	servercertifictetes t	The public key certificate that you want to upload. Note This parameter is required if you use a server certificate from a third-party service provider.
PrivateKey	String	No	wmsa****	The private key that you want to upload. Note This parameter is required if you use a server certificate from a third-party service provider.
ServerCertificateName	String	No	mycert01	The name of the server certificate that you want to upload. The name must be 1 to 80 characters in length, and can contain letters, digits, periods (.), underscores (_), and hyphens (-). It must start with a letter.
ResourceGroupId	String	No	rg-atstuj3rto****	The ID of the enterprise resource group.

Response parameters

Parameter	Type	Example	Description
ServerCertificateId	String	xxxxidkp-123-cn-test****	The ID of the server certificate.
ServerCertificateName	String	mycert01	The name of the server certificate.
Fingerprint	String	01:DF:AB:****	The fingerprint of the server certificate.
AliCloudCertificateId	String	730912673xxxxx_15d97e7709a_71445759hr_7892****	The ID of the server certificate that is provided by Alibaba Cloud SSL Certificates Service.

Parameter	Type	Example	Description
AliCloudCertificateName	String	cloudcertificate****	The name of the server certificate that is provided by Alibaba Cloud SSL Certificates Service.
CommonName	String	www.example.com	The domain name in the Common Name field of the server certificate.
CreateTime	String	2017-08-31T02:49:05Z	The time when the server certificate was created.
CreateTimeStamp	Long	1504147745000	The timestamp generated when the server certificate was created.
ExpireTime	String	2018-08-31T02:49:05Z	The time when the server certificate expires.
ExpireTimeStamp	Long	1504147745000	The timestamp generated when the server certificate expires.
IsAliCloudCertificate	Integer	0	Indicates whether the server certificate is provided by Alibaba Cloud SSL Certificates Service. Valid values: • 0: The server certificate is provided by a third-party service provider. • 1: The server certificate is provided by Alibaba Cloud SSL Certificates Service.
RegionId	String	cn-hangzhou	The ID of the region where the server certificate is created.
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.
ResourceGroupId	String	rg-atstuj3rt****	The ID of the enterprise resource group.
SubjectAlternativeNames	List	test	The list of alternative domain names of the server certificate. The alternative domain names are specified in the Subject Alternative Name field of the server certificate.

Examples

Sample requests

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

Sample success responses

XML **format**

```
<Fingerprint>01:DF:AB:****</Fingerprint>
<ExpireTimeStamp>1504147745000</ExpireTimeStamp>
<ResourceGroupId>rg-atstuj3rt****</ResourceGroupId>
<RequestId>365F4154-92F6-4AE4-92F8-7FF34B540710</RequestId>
<CreateTime>2017-08-31T02:49:05Z</CreateTime>
<SubjectAlternativeNames>
  <SubjectAlternativeName>test</SubjectAlternativeName>
</SubjectAlternativeNames>
<AliCloudCertificateId>730912673xxxxxx_15d97e7709a_71445759hr_7892****</AliCloudCertificateId>
<AliCloudCertificateName>cloudcertificate****</AliCloudCertificateName>
<IsAliCloudCertificate>0</IsAliCloudCertificate>
<ServerCertificateName>mycert01</ServerCertificateName>
<ServerCertificateId>xxxxidkp-123-cn-test****</ServerCertificateId>
<RegionId>cn-hangzhou</RegionId>
<ExpireTime>2018-08-31T02:49:05Z</ExpireTime>
<CreateTimeStamp>1504147745000</CreateTimeStamp>
<CommonName>www.example.com</CommonName>
```

JSON **format**

```
{
  "Fingerprint": "01:DF:AB:****",
  "ExpireTimeStamp": 1504147745000,
  "ResourceGroupId": "rg-atstuj3rt****",
  "RequestId": "365F4154-92F6-4AE4-92F8-7FF34B540710",
  "CreateTime": "2017-08-31T02:49:05Z",
  "SubjectAlternativeNames": {
    "SubjectAlternativeName": "test"
  },
  "AliCloudCertificateId": "730912673xxxxxx_15d97e7709a_71445759hr_7892****",
  "AliCloudCertificateName": "cloudcertificate****",
  "IsAliCloudCertificate": 0,
  "ServerCertificateName": "mycert01",
  "ServerCertificateId": "xxxxidkp-123-cn-test****",
  "RegionId": "cn-hangzhou",
  "ExpireTime": "2018-08-31T02:49:05Z",
  "CreateTimeStamp": 1504147745000,
  "CommonName": "www.example.com"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

15.2. DeleteServerCertificate

Deletes a server certificate.

 **Note** You cannot delete server certificates that are in use.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DeleteServerCertificate	The operation that you want to perform. Set the value to DeleteServerCertificate .
ServerCertificateId	String	Yes	123157xxxxxx_166f8204689_1714763408_7099*****	The ID of the server certificate.
RegionId	String	Yes	cn-hangzhou	The region where the Server Load Balancer (SLB) instance is created. You can call the DescribeRegions operation to query region IDs.

Response parameters

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

Examples

Sample request

```
http(s)://[Endpoint]/? Action=DeleteServerCertificate
&ServerCertificateId=123157xxxxxx_166f8204689_1714763408_7099*****
&<Common request parameters>
```

Sample success responses

XML format

```
<DeleteServerCertificateResponse>
  <RequestId>CEF72CEB-54B6-4AE8-B225-F876FF7BA984</RequestId></DeleteServerCertificateResponse>
```

JSON format

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

Error codes

HttpCode	Error code	Error message	Description
400	CertificateAndPrivateKeysReferred	The specified certificate is bound to listeners. You cannot delete it.	The error message returned because the server certificate cannot be deleted when the certificate is associated with a listener.

For a list of error codes, visit the [API Error Center](#).

15.3. DescribeServerCertificates

Queries the server certificates in a region.

 **Note** To guarantee security, only the fingerprint and name of the certificate are returned, and the contents of the certificate and private key are not returned.

Make the API call

You can use [OpenAPI Explorer](#) to make API calls, search for API calls, perform debugging, and generate SDK example code.

Request parameters

Parameter	Type	Required ?	Example value	Description
Action	String	Yes	DescribeServerCertificates	The name of this action. Value: DescribeServerCertificates
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the Server Load Balancer (SLB) instance belongs. To query the region ID, call DescribeRegions .
ResourceGroupId	String	No	rg-atstuj3rtoptyui	The ID of the enterprise resource group.
ServerCertificateId	String	No	12315790xxxxxxx_166f8204689_1714763408_709981430	The ID of the server certificate.

Response parameters

Parameter	Type	Example value	Description
ServerCertificates			The list of server certificates.
ServerCertificateId	String	123157xxxxxxx_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 ID of 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.
AliCloudCertificateId	String	7309xxxxxxx_15d97e7709a_71445759hr_789289731	The ID of the server certificate from Alibaba Cloud SSL Certificate Service.
AliCloudCertificateName	String	testcertkey	The name of the server certificate from 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 when the server certificate is uploaded.
CreateTimeStamp	Long	1504147745000	The timestamp generated when the server certificate is uploaded.
ExpireTime	String	017-08-31T02:49:05Z	The time when the server certificate expires.
ExpireTimeStamp	Long	15041477450	The timestamp generated when the server certificate expires.
IsAliCloudCertificate	Integer	0	Indicates whether the certificate is from Alibaba Cloud SSL Certificate Service. • 1: Yes. • 0: No.

Parameter	Type	Example value	Description
ResourceGroupId	String	rg-atstuj3rtoptyui	The ID of the enterprise resource group.
SubjectAlternativeNames		123	The list of alternate domain names for the certificate. This parameter is returned in array format. It corresponds to the Subject Alternative Name field of the certificate.
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.

Examples

Request example

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

Response example

XML format

```

<DescribeServerCertificatesResponse>
  <RequestId>9FFF450B-CC09-4FFB-900F-E347EB7AA2CC</RequestId>
  <ServerCertificates>
    <ServerCertificate>
      <CreateTimeStamp>1541761156000</CreateTimeStamp>
      <CommonName>*.example1.com</CommonName>
      <RegionIdAlias>cn-hangzhou</RegionIdAlias>
      <ResourceGroupId>rg-acfmxazb4ph6aiy</ResourceGroupId>
      <Fingerprint>68:08:1a:f8:2c:97:69:a3:a1:e6:16:41:4b:ca:4f:5d:ee:a5:ef:0d</Fingerprint>
    >
    <ServerCertificateId>1231579xxxxxx_166f8204689_1714763408_709981430</ServerCertificateId>
    <ExpireTimeStamp>1558161264000</ExpireTimeStamp>
    <AliCloudCertificateId>1501739</AliCloudCertificateId>
    <ExpireTime>2019-05-18T06:34:24Z</ExpireTime>
    <RegionId>cn-hangzhou</RegionId>
    <CreateTime>2018-11-09T10:59:16Z</CreateTime>
    <ServerCertificateName>*.example1.com</ServerCertificateName>
    <IsAliCloudCertificate>1</IsAliCloudCertificate>
    <AliCloudCertificateName>slb</AliCloudCertificateName>
  </ServerCertificate>
  <ServerCertificate>
    <CreateTimeStamp>1481623069000</CreateTimeStamp>
    <RegionIdAlias>cn-hangzhou</RegionIdAlias>
    <ResourceGroupId>rg-acfmxazb4ph6aiy</ResourceGroupId>
    <Fingerprint>cd:90:1b:7b:49:4d:1d:90:f6:01:de:9a:81:7d:31:a7:38:1d:84:8d</Fingerprint>
  >
  <ServerCertificateId>1231579085xxxx_158f79de306</ServerCertificateId>
  <ExpireTimeStamp>1732169065000</ExpireTimeStamp>
  <AliCloudCertificateId>0</AliCloudCertificateId>
  <ExpireTime>2024-11-21T06:04:25Z</ExpireTime>
  <RegionId>cn-hangzhou</RegionId>
  <CreateTime>2016-12-13T09:57:49Z</CreateTime>
  <ServerCertificateName>test_certificate</ServerCertificateName>
  <IsAliCloudCertificate>0</IsAliCloudCertificate>
  <AliCloudCertificateName></AliCloudCertificateName>
</ServerCertificate>
</ServerCertificates>
</DescribeServerCertificatesResponse>

```

JSON **format**

```
{
  "RequestId": "9FFF450B-CC09-4FFB-900F-E347EB7AA2CC",
  "ServerCertificates": {
    "ServerCertificate": [
      {
        "CreateTimeStamp": 1541761156000,
        "CommonName": "*.example1.com",
        "RegionIdAlias": "cn-hangzhou",
        "ResourceGroupId": "rg-acfmxazb4ph6aiy",
        "Fingerprint": "68:08:1a:f8:2c:97:69:a3:a1:e6:16:41:4b:ca:4f:5d:ee:a5:ef:0d",
        "ServerCertificateId": "1231579xxxxxxx_166f8204689_1714763408_709981430",
        "ExpireTimeStamp": 1558161264000,
        "AliCloudCertificateId": "1501739",
        "ExpireTime": "2019-05-18T06:34:24Z",
        "RegionId": "cn-hangzhou",
        "CreateTime": "2018-11-09T10:59:16Z",
        "ServerCertificateName": "*.example1.com",
        "IsAliCloudCertificate": 1,
        "AliCloudCertificateName": "slb"
      },
      {
        "CreateTimeStamp": 1481623069000,
        "RegionIdAlias": "cn-hangzhou",
        "ResourceGroupId": "rg-acfmxazb4ph6aiy",
        "Fingerprint": "cd:90:1b:7b:49:4d:1d:90:f6:01:de:9a:81:7d:31:a7:38:1d:84:8d",
        "ServerCertificateId": "1231579085529123_158f79de306",
        "ExpireTimeStamp": 1732169065000,
        "AliCloudCertificateId": "0",
        "ExpireTime": "2024-11-21T06:04:25Z",
        "RegionId": "cn-hangzhou",
        "CreateTime": "2016-12-13T09:57:49Z",
        "ServerCertificateName": "test_certificate",
        "IsAliCloudCertificate": 0,
        "AliCloudCertificateName": ""
      }
    ]
  }
}
```

Errors

For a list of error codes, visit the [API Error Center](#).

15.4. SetServerCertificateName

Sets a name for a server certificate.

Make the API call

You can use [OpenAPI Explorer](#) to make API calls, search for API calls, perform debugging, and generate SDK example code.

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 Server Load Balancer (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. It must start with an English letter. It can contain letters, numbers, periods (.), underscores (_), 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=SetServerCertificateName
&RegionId=cn-hangzhou
&ServerCertificateId=139a00604ad-cn-east-hangzhou-01
&ServerCertificateName=abc
&<CommonParameters>
```

Response example

XML format

```
<SetServerCertificateNameResponse>
  <RequestId>CEF72CEB-54B6-4AE8-B225-F876FE7BA984</RequestId>
</SetServerCertificateNameResponse>
```

JSON format

```
{
  "RequestId": " CEF72CEB-54B6-4AE8-B225-F876FE7BA984"
}
```

Errors

For a list of error codes, visit the [API Error Center](#).

15.5. UploadCACertificate

Uploads a CA certificate.

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

Make the API call

You can use [OpenAPI Explorer](#) to make API calls, search for API calls, perform debugging, and generate SDK example code.

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 ID of 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	The name of the CA certificate.
ResourceGroupId	string	No	rg-atstuj3rtoptyui	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.

Parameter	Type	Example value	Description
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 when the CA certificate is uploaded.
CreateTimeStamp	Long	1504147745000	The timestamp generated when the CA certificate is uploaded.
ExpireTime	String	2024-11-21T06:04:25Z	The time when the CA certificate expires.
ExpireTimeStamp	Long	1732169065000	The timestamp generated 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 example

XML format

```
<UploadCACertificateResponse>
  <RequestId>365F4154-92F6-4AE4-92F8-7FF34B540710</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": "365F4154-92F6-4AE4-92F8-7FF34B540710",
  "ServerCertificateName": "mycacert01",
  "Fingerprint": "02:DF:AB:ED"
}
```

Errors

For a list of error codes, visit the [API Error Center](#).

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
&CACertificateId=123157908xxxxxxx_15c73d77203_-986300114_-2110544xxx
&<CommonParameters>
```

Response examples

XML format

```
<DeleteCACertificateResponse>
  <RequestId>CEFxxxx72CEB-54B6-4AE8-B225-F876FF7BA984</RequestId>
</DeleteCACertificateResponse>
```

JSON format

```
{
  "RequestId": " CEFxxxx72CEB-54B6-4AE8-B225-F876FF7BA984"
}
```

Error codes

See [common error codes](#).

15.7. DescribeCACertificates

Queries the list of CA certificates.

 **Note** To guarantee security, only the name and fingerprint are returned, and the certificate content is not returned.

Make the API call

You can use [OpenAPI Explorer](#) to make API calls, search for API calls, perform debugging, and generate SDK example code.

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 ID of the region to which the CA certificate belongs. To query the region ID, call DescribeRegions .

Parameter	Type	Required ?	Example value	Description
CACertificateId	String	No	139a00604bd-cn-east-hangzhou-02	The ID of the CA certificate.
OwnerAccount	String	No	testuser@aliyun.com	The Alibaba Cloud account.
ResourceGroupId	String	No	rg-atstuj3rtoptyui	The ID of the enterprise resource group.

Response parameters

Parameter	Type	Example value	Description
CACertificates			The 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 ID of the region to which the CA certificate belongs.
Fingerprint	String	AC:BE:FD	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 when the CA certificate is created.
CreateTimeStamp	Long	1504147745000	The timestamp generated when the CA certificate is created.
ExpireTime	String	2024-11-21T06:04:25Z	The time when the CA certificate expires.
ExpireTimeStamp	Long	1732169065000	The timestamp generated when the CA certificate expires.
ResourceGroupId	String	rg-atstuj3rtoptyui	The ID of the enterprise resource group.
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.

Examples

Request example

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

Response example

XML **format**

```
<DescribeCACertificateResponse>
  <RequestId>365F4154-92F6-4AE4-92F8-7FF34B540710</RequestId>
  <CACertificates>
    <CACertificate>
      <CACertificateId>139a00604bd-cn-east-hangzhou-01
    </CACertificateId>
      <CACertificateName>bcd
    </CACertificateName>
      <Fingerprint>AB:CB:DE</Fingerprint>
    </CACertificate>
    <CACertificate>
      <CACertificateId>139a00604bd-cn-east-hangzhou-02</CACertificateId>
      <CACertificateName>cde</CACertificateName>
      <Fingerprint>AC:BE:FD</Fingerprint>
    </CACertificate>
  </CACertificates>
</DescribeCACertificateResponse>
```

JSON **format**

```
{
  "RequestId": "365F4154-92F6-4AE4-92F8-7FF34B540710",
  "CACertificates": {
    "CACertificate": [
      {
        "CACertificateName": "bcd",
        "Fingerprint": "AB:CB:DE",
        "CACertificateId": "139a00604bd-cn-east-hangzhou-01"
      },
      {
        "CACertificateName": "cde",
        "Fingerprint": "AC:BE:FD",
        "CACertificateId": "282b00102ac-cn-east-hangzhou-02"
      }
    ]
  }
}
```

Errors

For a list of error codes, visit the [API Error Center](#).

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
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**

```
<SetCACertificateNameResponse>
  <RequestId>CEF72CEB-54B6-4AE8-B225-F876FE7BA984</RequestId>
</SetCACertificateNameResponse>
```

JSON **format**

```
{
  "RequestId": " CEF72CEB-54B6-4AE8-B225-F876FE7BA984"
}
```

Error codes

[See common error codes.](#)

16.TLS policies

16.1. CreateTLSCipherPolicy

Creates a TLS policy.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateTLSCipherPolicy	The operation that you want to perform. Set the value to CreateTLSCipherPolicy .

Parameter	Type	Required	Example	Description
Ciphers.N	RepeatList	Yes	AES256-SHA256	The supported cipher suites, which are determined by the TLS protocol version. TLSv1.0 and TLSv1.1 support the following cipher suites: • ECDHE-ECDSA-AES128-SHA • ECDHE-ECDSA-AES256-SHA • ECDHE-RSA-AES128-SHA • ECDHE-RSA-AES256-SHA • AES128-SHA • AES256-SHA • DES-CBC3-SHA TLSv1.2 supports the following cipher suites: • ECDHE-ECDSA-AES128-SHA • ECDHE-ECDSA-AES256-SHA • ECDHE-RSA-AES128-SHA • ECDHE-RSA-AES256-SHA • AES128-SHA • AES256-SHA • DES-CBC3-SHA • ECDHE-ECDSA-AES128-GCM-SHA256 • ECDHE-ECDSA-AES256-GCM-SHA384 • ECDHE-ECDSA-AES128-SHA256 • ECDHE-ECDSA-AES256-SHA384 • 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 TLSv1.3 supports the following cipher suites: • TLS_AES_128_GCM_SHA256 • TLS_AES_256_GCM_SHA384 • TLS_CHACHA20_POLY1305_SHA256 • TLS_AES_128_CCM_SHA256 • TLS_AES_128_CCM_8_SHA256

Parameter	Type	Required	Example	Description
Name	String	Yes	TLSPolicy-test*****	The name of the TLS policy. The name must be 2 to 128 characters in length, and can contain letters, digits, periods (.), underscores (_), and hyphens (-). It must start with a letter.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the Server Load Balancer (SLB) instance is deployed.
TLSVersions.N	RepeatList	Yes	TLSv1.0	The supported TLS protocol versions. Valid values: TLSv1.0, TLSv1.1, TLSv1.2, and TLSv1.3.

Response parameters

Parameter	Type	Example	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request.
TLSCipherPolicyId	String	tc-policy*****	The ID of the created TLS policy.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=CreateTLSCipherPolicy
&Ciphers.1=AES256-SHA256
&Name=TLSPolicy-test*****
&RegionId=cn-hangzhou
&TLSVersions.1=TLSv1.0
&<Common request parameters>
```

Sample success responses

XML format

```
<CreateTLSCipherPolicyResponse>
  <RequestId>CEF72CEB-54B6-4AE8-B225-F876FF7BA984</RequestId>
  <TLSCipherPolicyId>tc-policy*****</TLSCipherPolicyId>
</CreateTLSCipherPolicyResponse>
```

JSON format

```
{"RequestId": "CEF72CEB-54B6-4AE8-B225-F876FF7BA984",
 "TLSCipherPolicyId": "tc-policy*****"}
```

Errors

For a list of error codes, visit the [API Error Center](#).

16.2. DeleteTLSCipherPolicy

Deletes a TLS policy.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DeleteTLSCipherPolicy	The operation that you want to perform. Set the value to DeleteTLSCipherPolicy .
RegionId	String	Yes	cn-hangzhou	The ID of the region where the Server Load Balancer (SLB) instance is deployed.
TLSCipherPolicyId	String	Yes	tls-bp1lp2076qx4ebri dp*****	The ID of the TLS policy.

Response parameters

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

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DeleteTLSCipherPolicy
&RegionId=cn-hangzhou
&TLSCipherPolicyId=tls-bp1lp2076qx4ebri  
dp*****
&<Common request parameters>
```

Sample success responses

XML format

```
<DeleteTLSCipherPolicyResponse>
  <RequestId>CEF72CEB-54B6-4AE8-B225-F876FF7BA984</RequestId>
</DeleteTLSCipherPolicyResponse>
```

JSON format

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

Errors

For a list of error codes, visit the [API Error Center](#).

16.3. ListTLSCipherPolicies

Queries TLS policies.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	ListTLSCipherPolicies	The operation that you want to perform. Set the value to ListTLSCipherPolicies .
RegionId	String	Yes	cn-hangzhou	The ID of the region where the Server Load Balancer (SLB) instance is deployed.
TLSCipherPolicyId	String	Yes	tls-bp1lp2076qx4e*** ***bridp	The ID of the TLS policy.
Name	String	No	tls-policy*****-test	The name of the TLS policy. The name must be 2 to 128 characters in length, and can contain letters, digits, periods (.), underscores (_), and hyphens (-). It must start with a letter.
IncludeListener	Boolean	No	false	Specifies whether to return the information about the associated listener. Valid values: true and false . Default value: false.
NextToken	String	No	cae*****f 0a	The position where the query starts. If this parameter is left empty, the query starts from the beginning.

Parameter	Type	Required	Example	Description
MaxItems	Integer	No	20	The maximum number of TLS policies that can be queried in this call. Valid values: 1 to 100 . If this parameter is left empty, the default value 20 is used.

Response parameters

Parameter	Type	Example	Description
IsTruncated	Boolean	false	Indicates whether the query ends. Valid values: • true: The current page is the last page to return. • false: The current page is not the last page to return.
NextToken	String	caeba0bbb2be03f84eb48b699f0a****	Indicates the position where the query started. If this parameter was left empty, the query started from the beginning.
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request.
TLSCipherPolicies	Array of TLSCipherPolicy		The list of TLS policies.

Parameter	Type	Example	Description
Ciphers	List	ECDHE-ECDSA-AES128-SHA	The supported cipher suites, which are determined by the TLS protocol version. TLSv1.0 and TLSv1.1 support the following cipher suites: • ECDHE-ECDSA-AES128-SHA • ECDHE-ECDSA-AES256-SHA • ECDHE-RSA-AES128-SHA • ECDHE-RSA-AES256-SHA • AES128-SHA AES256-SHA • DES-CBC3-SHA TLSv1.2 supports the following cipher suites: • ECDHE-ECDSA-AES128-SHA • ECDHE-ECDSA-AES256-SHA • ECDHE-RSA-AES128-SHA • ECDHE-RSA-AES256-SHA • AES128-SHA AES256-SHA • DES-CBC3-SHA • ECDHE-ECDSA-AES128-GCM-SHA256 • ECDHE-ECDSA-AES256-GCM-SHA384 • ECDHE-ECDSA-AES128-SHA256 • ECDHE-ECDSA-AES256-SHA384 • 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 TLSv1.3 supports the following cipher suites: • TLS_AES_128_GCM_SHA256 • TLS_AES_256_GCM_SHA384 • TLS_CHACHA20_POLY1305_SHA256 • TLS_AES_128_CCM_SHA256 • TLS_AES_128_CCM_8_SHA256
CreateTime	Long	1608273800000	The timestamp when the query was started.
InstanceId	String	tls-bp1lp2076qx4e*****bridp	The ID of the TLS policy.

Parameter	Type	Example	Description
Name	String	tls-policy*****-test	The name of the TLS policy.
RelateListeners	Array of RelateListener		The associated listener.
LoadBalancerId	String	lb-bp1b6c719dfa08ex***	The ID of the SLB instance.
Port	Integer	80	The listening port. Valid values: 1 to 65535.
Protocol	String	HTTPS	The listener protocol. Valid values: TCP, UDP, HTTP, and HTTPS.
Status	String	normal	The state of the TLS policy. Valid values: configuring: The policy is being configured. normal: The policy is normal.
TLSVersions	List	TLSv1.0	The supported TLS protocol versions.
TotalCount	Integer	1000	The total number of TLS policies that were returned in this call.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=ListTLSCipherPolicies
&RegionId=cn-hangzhou
&TLSCipherPolicyId=tls-bp1lp2076qx4e*****bridp
&<Common request parameters>
```

Sample success responses

XML format

```
<ListTLSCipherPoliciesResponse>
  <TotalCount>1000</TotalCount>
  <NextToken>caeba0bbb2be03f84eb48b699f0a****</NextToken>
  <RequestId>CEF72CEB-54B6-4AE8-B225-F876FF7BA984</RequestId>
  <TLSCipherPolicies>
    <Status>normal</Status>
    <InstanceId>tls-bp1lp2076qx4e*****bridp</InstanceId>
    <CreateTime>1608273800000</CreateTime>
    <Name>tls-policy*****-test</Name>
  </TLSCipherPolicies>
  <TLSCipherPolicies>
    <RelateListeners>
      <LoadBalancerId>lb-bp1b6c719dfa08ex*****</LoadBalancerId>
      <Protocol>HTTPS</Protocol>
      <Port>80</Port>
    </RelateListeners>
  </TLSCipherPolicies>
  <TLSCipherPolicies>
    <Ciphers>ECDHE-ECDSA-AES128-SHA</Ciphers>
    <TLSVersions>TLSv1.0</TLSVersions>
  </TLSCipherPolicies>
  <IsTruncated>false</IsTruncated>
</ListTLSCipherPoliciesResponse>
```

JSON **format**

```
{ "TotalCount": "1000",
  "NextToken": "caeba0bbb2be03f84eb48b699f0a****",
  "RequestId": "CEF72CEB-54B6-4AE8-B225-F876FF7BA984",
  "TLSCipherPolicies":
  [
    {
      "Status": "normal",
      "InstanceId": "tls-bp1lp2076qx4e*****bridp",
      "CreateTime": "1608273800000",
      "Name": "tls-policy*****-test"
    },
    {
      "RelateListeners": [
        {
          "LoadBalancerId": "lb-bp1b6c719dfa08ex*****",
          "Protocol": "HTTPS",
          "Port": "80"
        }
      ],
      "Ciphers": "ECDHE-ECDSA-AES128-SHA",
      "TLSVersions": "TLSv1.0"
    },
    {
      "IsTruncated": "false"
    }
  ]
}
```

Errors

For a list of error codes, visit the [API Error Center](#).

16.4. SetTLSCipherPolicyAttribute

Configures a TLS policy.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	SetTLSCipherPolicyAttribute	The operation that you want to perform. Set the value to SetTLSCipherPolicyAttribute .

Parameter	Type	Required	Example	Description
Ciphers.N	RepeatList	Yes	DES-CBC3-SHA	The supported cipher suites, which are determined by the TLS protocol version. The specified cipher suites must be supported by at least one TLS protocol version that you select. For example, if you set the TLSVersions.N parameter to TLSv1.3, you can specify only cipher suites that are supported by this protocol version. TLSv1.0 and TLSv1.1 support the following cipher suites: • ECDHE-ECDSA-AES128-SHA • ECDHE-ECDSA-AES256-SHA • ECDHE-RSA-AES128-SHA • ECDHE-RSA-AES256-SHA • AES128-SHA AES256-SHA • DES-CBC3-SHA TLSv1.2 supports the following cipher suites: • ECDHE-ECDSA-AES128-SHA • ECDHE-ECDSA-AES256-SHA • ECDHE-RSA-AES128-SHA • ECDHE-RSA-AES256-SHA • AES128-SHA AES256-SHA • DES-CBC3-SHA • ECDHE-ECDSA-AES128-GCM-SHA256 • ECDHE-ECDSA-AES256-GCM-SHA384 • ECDHE-ECDSA-AES128-SHA256 • ECDHE-ECDSA-AES256-SHA384 • 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 TLSv1.3 supports the following cipher suites: • TLS_AES_128_GCM_SHA256 • TLS_AES_256_GCM_SHA384 • TLS_CHACHA20_POLY1305_SHA256 • TLS_AES_128_CCM_SHA256 • TLS_AES_128_CCM_8_SHA256

Parameter	Type	Required	Example	Description
Name	String	Yes	tls-policy*****-test	The name of the TLS policy. The name must be 2 to 128 characters in length, and can contain letters, digits, periods (.), underscores (_), and hyphens (-). It must start with a letter.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the Server Load Balancer (SLB) instance is deployed.
TLSCipherPolicyId	String	Yes	tls-bp1lp2076qx4e****bridp	The ID of the TLS policy.
TLSVersions.N	RepeatList	Yes	TLSv1.0	The supported TLS protocol versions. Valid values: TLSv1.0 , TLSv1.1 , TLSv1.2 , and TLSv1.3 .
access_key_id	String	No	acc-nacl-hp34s2h0xx1ht4nwo****	The AccessKey ID.

Response parameters

Parameter	Type	Example	Description
RequestId	String	CEF72CEB-54B6-4AE8-B225-F876FF7BA984	The ID of the request.
TaskId	String	72dcd26b-f12d-4c27-b3af****-18f6aed5	The ID of the asynchronous task.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=SetTLSCipherPolicyAttribute
&Ciphers.1=DES-CBC3-SHA
&Name=tls-policy*****-test
&RegionId=cn-hangzhou
&TLSCipherPolicyId=tls-bp1lp2076qx4e*****bridp
&TLSVersions.1=TLSv1.0
&<Common request parameters>
```

Sample success responses

XML format

```
<SetTLSCipherPolicyAttributeReaponse>
  <TaskId>72dcd26b-f12d-4c27-b3af****-18f6aed5</TaskId>
  <RequestId>CEF72CEB-54B6-4AE8-B225-F876FF7BA984</RequestId>
</SetTLSCipherPolicyAttributeReaponse>
```

JSON **format**

```
{ "TaskId": "72dcd26b-f12d-4c27-b3af****-18f6aed5",
  "RequestId": "CEF72CEB-54B6-4AE8-B225-F876FF7BA984" }
```

Errors

For a list of error codes, visit the [API Error Center](#).

17.Domain name extensions (Beta)

17.1. DescribeDomainExtensionAttribute

Queries the attributes of an additional certificate.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeDomainExtensionAttribute	The operation that you want to perform. Set the value to DescribeDomainExtensionAttribute .
DomainExtensionId	String	Yes	de-bp1rp7ta191dv	The ID of the additional certificate.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the Server Load Balancer (SLB) instance is deployed.

Response parameters

Parameter	Type	Example	Description
Domain	String	www.example.com	The domain name.
DomainExtensionId	String	de-bp1rp7ta191dv	The ID of the additional certificate.
ListenerPort	Integer	443	The frontend port of the HTTPS listener that is configured for the SLB instance. Valid values: 1 to 65535 .
LoadBalancerId	String	lb-bp1o94dp5i6****ear9g6d1l	The ID of the SLB instance.
RequestId	String	48C1B671-C6DB-4DDE-9B30-10557E36CDE0	The ID of the request.

Parameter	Type	Example	Description
ServerCertificateId	String	231579085529123_166f82*****_1714763408_709981430	The ID of the server certificate that is used by the domain name.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DescribeDomainExtensionAttribute
&DomainExtensionId=de-bp1rp7ta191dv
&RegionId=cn-hangzhou
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeDomainExtensionAttributeResponse>
  <ListenerPort>443</ListenerPort>
  <DomainExtensionId>de-bp1rp7ta191dv</DomainExtensionId>
  <RequestId>48C1B671-C6DB-4DDE-9B30-10557E36CDE0</RequestId>
  <ServerCertificateId>231579085529123_166f82*****_1714763408_709981430</ServerCertificateId>
  <LoadBalancerId>lb-bp1o94dp5i6*****earr9g6d1l</LoadBalancerId>
  <Domain>www.example.com</Domain>
</DescribeDomainExtensionAttributeResponse>
```

JSON format

```
{ "ListenerPort": "443",
  "DomainExtensionId": "de-bp1rp7ta191dv",
  "RequestId": "48C1B671-C6DB-4DDE-9B30-10557E36CDE0",
  "ServerCertificateId": "231579085529123_166f82*****_1714763408_709981430",
  "LoadBalancerId": "lb-bp1o94dp5i6*****earr9g6d1l",
  "Domain": "www.example.com" }
```

Errors

For a list of error codes, visit the [API Error Center](#).

17.2. 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-bp1o94dp5i6earrxxxx	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	123157xxxxxx_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-bp1o94dp5i6earrxxxxxx
&RegionId=cn-hangzhou
&ServerCertificateId=123157xxxxxx_166f820xxxxxx_1714763408_709981xxxx
&<CommonParameters>
```

Response examples

XML format

```
<CreateDomainExtensionResponse>
  <RequestId>A6E7EFC9-0938-40CA-877D-9BEDBD21D357</RequestId>
  <DomainExtensionId>de-bp1rp7ta191dv</DomainExtensionId>
  <ListenerPort>443</ListenerPort>
</CreateDomainExtensionResponse>
```

JSON format

```
{
  "RequestId": "A6E7EFC9-0938-40CA-877D-9BEDBD21D357",
  "DomainExtensionId": "de-bp1rp7ta191dv",
  "ListenerPort": 443
}
```

Error codes

See [common error codes](#).

17.3. SetDomainExtensionAttribute

Replaces an additional certificate.

 **Note** You cannot replace an additional certificate for a listener that is added to a shared-resource Server Load Balancer (SLB) instance.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer automatically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	SetDomainExtensionAttribute	The operation that you want to perform. Set the value to SetDomainExtensionAttribute .
DomainExtensionId	String	Yes	de-bp1rp7ta*****	The ID of the domain name that is associated with the additional certificate to be replaced.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SLB instance is created.

Parameter	Type	Required	Example	Description
ServerCertificateId	String	Yes	1231579xxxxxxxxx_166f8204689_1714763408_709981xxx	The ID of the new certificate.

Response parameters

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

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=SetDomainExtensionAttribute
&DomainExtensionId=de-bplrp7ta*****
&RegionId=cn-hangzhou
&ServerCertificateId=1231579xxxxxxxxx_166f8204689_1714763408_709981xxx
&<Common request parameters>
```

Sample success responses

XML format

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

JSON format

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

Error codes

For a list of error codes, visit the [API Error Center](#).

17.4. 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.
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.
<code><L>Domain</code>	String	www.example.com	The domain name.
<code><L>DomainExtensionId</code>	String	de-bp1rp7ta191dv	The ID of the domain name extension.
<code><L>ServerCertificateId</code>	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-9211-9BD6BF7BB997</RequestId>
  <DomainExtensions>
    <DomainExtension>
      <ServerCertificateId>123157908xxxxxx_166f8204689_1714763408_70xxx</ServerCertificateId>
      <Domain>*.example2.com</Domain>
      <DomainExtensionId>de-bp1k4chwdnhxd</DomainExtensionId>
    </DomainExtension>
  </DomainExtensions>
</DescribeDomainExtensionsResponse>
```

JSON format

```
{
  "RequestId": "48C1B671-C6DB-4DDE-9B30-10557E36CDE0",
  "DomainExtensions": {
    "DomainExtension": [
      {
        "ServerCertificateId": "123157908xxxxxx_166f8204689_1714763408_70xxx",
        "Domain": "*.example1.com",
        "DomainExtensionId": "de-bp1rp7ta191dv"
      }
    ]
  }
}
```

Error codes

[See common error codes.](#)

17.5. 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-bplrp7ta191dv
&RegionId=cn-hangzhou
&<CommonParameters>
```

Response examples

XML format

```
<DeleteDomainExtensionResponse>
  <RequestId>149A2470-F010-4437-BF68-343D5099C19D</RequestId>
</DeleteDomainExtensionResponse>
```

JSON format

```
{
  "RequestId": "5B45BED9-4D41-47B0-ADD6-47A5624516C7"
}
```

Error codes

See [common error codes](#).

18. Query resources

18.1. 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.
L-MasterZoneId	String	cn-shanghai-a	The primary zone ID.
L-SlaveZoneId	String	cn-shanghai-b	The secondary zone ID.

Parameter	Type	Example value	Description
<code>L-SupportResources</code>			The resources available in the corresponding zone.
<code>L-AddressIPVersion</code>	String	ipv4	The IP version of the resources. Valid values: ipv4 ipv6
<code>L-AddressType</code>	String	classic_internet	The network type of the resources. Valid value: vpc classic-internet classic-intranet
<code>RequestId</code>	String	173B0EEA-22ED-4EE2-91F9-3A1CDDFFBBBA	The ID of the request.

Examples

Request example

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

Response examples

XML **format**

```
<DescribeAvailableResource>
  <RequestId>173B0EEA-22ED-4EE2-91F9-3A1CDDFFBBBA</RequestId>
  <AvailableResources>
    <AvailableResource>
      <SupportResources>
        <SupportResource>
          <AddressIPVersion>ipv4</AddressIPVersion>
          <AddressType>classic_internet</AddressType>
        </SupportResource>
        <SupportResource>
          <AddressIPVersion>ipv4</AddressIPVersion>
          <AddressType>classic_intranet</AddressType>
        </SupportResource>
        <SupportResource>
          <AddressIPVersion>ipv4</AddressIPVersion>
          <AddressType>vpc</AddressType>
        </SupportResource>
      </SupportResources>
      <SlaveZoneId>cn-shanghai-b</SlaveZoneId>
      <MasterZoneId>cn-shanghai-a</MasterZoneId>
    </AvailableResource>
    <AvailableResource>
      <SupportResources>
        <SupportResource>
          <AddressIPVersion>ipv4</AddressIPVersion>
```

```

        <AddressType>classic_internet</AddressType>
    </SupportResource>
    <SupportResource>
        <AddressIPVersion>ipv4</AddressIPVersion>
        <AddressType>classic_intranet</AddressType>
    </SupportResource>
    <SupportResource>
        <AddressIPVersion>ipv4</AddressIPVersion>
        <AddressType>vpc</AddressType>
    </SupportResource>
</SupportResources>
<SlaveZoneId>cn-shanghai-a</SlaveZoneId>
<MasterZoneId>cn-shanghai-b</MasterZoneId>
</AvailableResource>
<AvailableResource>
    <SupportResources>
        <SupportResource>
            <AddressIPVersion>ipv4</AddressIPVersion>
            <AddressType>classic_internet</AddressType>
        </SupportResource>
        <SupportResource>
            <AddressIPVersion>ipv4</AddressIPVersion>
            <AddressType>classic_intranet</AddressType>
        </SupportResource>
        <SupportResource>
            <AddressIPVersion>ipv4</AddressIPVersion>
            <AddressType>vpc</AddressType>
        </SupportResource>
    </SupportResources>
    <SlaveZoneId>cn-shanghai-c</SlaveZoneId>
    <MasterZoneId>cn-shanghai-b</MasterZoneId>
</AvailableResource>
<AvailableResource>
    <SupportResources>
        <SupportResource>
            <AddressIPVersion>ipv4</AddressIPVersion>
            <AddressType>classic_internet</AddressType>
        </SupportResource>
        <SupportResource>
            <AddressIPVersion>ipv4</AddressIPVersion>
            <AddressType>classic_intranet</AddressType>
        </SupportResource>
        <SupportResource>
            <AddressIPVersion>ipv4</AddressIPVersion>
            <AddressType>vpc</AddressType>
        </SupportResource>
    </SupportResources>
    <SlaveZoneId>cn-shanghai-b</SlaveZoneId>
    <MasterZoneId>cn-shanghai-c</MasterZoneId>
</AvailableResource>
<AvailableResource>
    <SupportResources>
        <SupportResource>
            <AddressIPVersion>ipv4</AddressIPVersion>
            <AddressType>classic_internet</AddressType>
        </SupportResource>
    </SupportResources>

```

```

    <SupportResource>
      <AddressIPVersion>ipv4</AddressIPVersion>
      <AddressType>classic_intranet</AddressType>
    </SupportResource>
    <SupportResource>
      <AddressIPVersion>ipv4</AddressIPVersion>
      <AddressType>vpc</AddressType>
    </SupportResource>
  </SupportResources>
  <SlaveZoneId>cn-shanghai-e</SlaveZoneId>
  <MasterZoneId>cn-shanghai-d</MasterZoneId>
</AvailableResource>
<AvailableResource>
  <SupportResources>
    <SupportResource>
      <AddressIPVersion>ipv4</AddressIPVersion>
      <AddressType>classic_internet</AddressType>
    </SupportResource>
    <SupportResource>
      <AddressIPVersion>ipv4</AddressIPVersion>
      <AddressType>classic_intranet</AddressType>
    </SupportResource>
    <SupportResource>
      <AddressIPVersion>ipv4</AddressIPVersion>
      <AddressType>vpc</AddressType>
    </SupportResource>
  </SupportResources>
  <SlaveZoneId>cn-shanghai-f</SlaveZoneId>
  <MasterZoneId>cn-shanghai-e</MasterZoneId>
</AvailableResource>
<AvailableResource>
  <SupportResources>
    <SupportResource>
      <AddressIPVersion>ipv4</AddressIPVersion>
      <AddressType>classic_internet</AddressType>
    </SupportResource>
    <SupportResource>
      <AddressIPVersion>ipv4</AddressIPVersion>
      <AddressType>classic_intranet</AddressType>
    </SupportResource>
    <SupportResource>
      <AddressIPVersion>ipv4</AddressIPVersion>
      <AddressType>vpc</AddressType>
    </SupportResource>
    <SupportResource>
      <AddressIPVersion>ipv6</AddressIPVersion>
      <AddressType>classic_internet</AddressType>
    </SupportResource>
  </SupportResources>
  <SlaveZoneId>cn-shanghai-d</SlaveZoneId>
  <MasterZoneId>cn-shanghai-e</MasterZoneId>
</AvailableResource>
<AvailableResource>
  <SupportResources>
    <SupportResource>
      <AddressIPVersion>ipv4</AddressIPVersion>

```

```

        <AddressType>classic_internet</AddressType>
    </SupportResource>
    <SupportResource>
        <AddressIPVersion>ipv4</AddressIPVersion>
        <AddressType>classic_intranet</AddressType>
    </SupportResource>
    <SupportResource>
        <AddressIPVersion>ipv4</AddressIPVersion>
        <AddressType>vpc</AddressType>
    </SupportResource>
</SupportResources>
<SlaveZoneId>cn-shanghai-e</SlaveZoneId>
<MasterZoneId>cn-shanghai-f</MasterZoneId>
</AvailableResource>
<AvailableResource>
    <SupportResources>
        <SupportResource>
            <AddressIPVersion>ipv4</AddressIPVersion>
            <AddressType>classic_internet</AddressType>
        </SupportResource>
        <SupportResource>
            <AddressIPVersion>ipv4</AddressIPVersion>
            <AddressType>classic_intranet</AddressType>
        </SupportResource>
        <SupportResource>
            <AddressIPVersion>ipv4</AddressIPVersion>
            <AddressType>vpc</AddressType>
        </SupportResource>
    </SupportResources>
    <SlaveZoneId>cn-shanghai-g</SlaveZoneId>
    <MasterZoneId>cn-shanghai-f</MasterZoneId>
</AvailableResource>
<AvailableResource>
    <SupportResources>
        <SupportResource>
            <AddressIPVersion>ipv4</AddressIPVersion>
            <AddressType>classic_internet</AddressType>
        </SupportResource>
        <SupportResource>
            <AddressIPVersion>ipv4</AddressIPVersion>
            <AddressType>classic_intranet</AddressType>
        </SupportResource>
        <SupportResource>
            <AddressIPVersion>ipv4</AddressIPVersion>
            <AddressType>vpc</AddressType>
        </SupportResource>
    </SupportResources>
    <SlaveZoneId>cn-shanghai-f</SlaveZoneId>
    <MasterZoneId>cn-shanghai-g</MasterZoneId>
</AvailableResource>
</AvailableResources>
</DescribeAvailableResource>

```

JSON **format**

```
{
  "RequestId": "173B0EEA-22ED-4EE2-91F9-3A1CDDFFBBBA",
  "AvailableResources": {
    "AvailableResource": [
      {
        "SlaveZoneId": "cn-shanghai-b",
        "SupportResources": {
          "SupportResource": [
            {
              "AddressIPVersion": "ipv4",
              "AddressType": "classic_internet"
            },
            {
              "AddressIPVersion": "ipv4",
              "AddressType": "classic_intranet"
            },
            {
              "AddressIPVersion": "ipv4",
              "AddressType": "vpc"
            }
          ]
        },
        "MasterZoneId": "cn-shanghai-a"
      },
      {
        "SlaveZoneId": "cn-shanghai-a",
        "SupportResources": {
          "SupportResource": [
            {
              "AddressIPVersion": "ipv4",
              "AddressType": "classic_internet"
            },
            {
              "AddressIPVersion": "ipv4",
              "AddressType": "classic_intranet"
            },
            {
              "AddressIPVersion": "ipv4",
              "AddressType": "vpc"
            }
          ]
        },
        "MasterZoneId": "cn-shanghai-b"
      },
      {
        "SlaveZoneId": "cn-shanghai-c",
        "SupportResources": {
          "SupportResource": [
            {
              "AddressIPVersion": "ipv4",
              "AddressType": "classic_internet"
            },
            {
              "AddressIPVersion": "ipv4",
              "AddressType": "classic_intranet"
            }
          ],
        }
      }
    ]
  }
}
```

```
{
  "AddressIPVersion": "ipv4",
  "AddressType": "vpc"
}
],
"MasterZoneId": "cn-shanghai-b"
},
{
  "SlaveZoneId": "cn-shanghai-b",
  "SupportResources": {
    "SupportResource": [
      {
        "AddressIPVersion": "ipv4",
        "AddressType": "classic_internet"
      },
      {
        "AddressIPVersion": "ipv4",
        "AddressType": "classic_intranet"
      },
      {
        "AddressIPVersion": "ipv4",
        "AddressType": "vpc"
      }
    ]
  },
  "MasterZoneId": "cn-shanghai-c"
},
{
  "SlaveZoneId": "cn-shanghai-e",
  "SupportResources": {
    "SupportResource": [
      {
        "AddressIPVersion": "ipv4",
        "AddressType": "classic_internet"
      },
      {
        "AddressIPVersion": "ipv4",
        "AddressType": "classic_intranet"
      },
      {
        "AddressIPVersion": "ipv4",
        "AddressType": "vpc"
      }
    ]
  },
  "MasterZoneId": "cn-shanghai-d"
},
{
  "SlaveZoneId": "cn-shanghai-f",
  "SupportResources": {
    "SupportResource": [
      {
        "AddressIPVersion": "ipv4",
        "AddressType": "classic_internet"
      }
    ]
  }
},
```

```
{
  "AddressIPVersion": "ipv4",
  "AddressType": "classic_intranet"
},
{
  "AddressIPVersion": "ipv4",
  "AddressType": "vpc"
}
],
},
"MasterZoneId": "cn-shanghai-e"
},
{
  "SlaveZoneId": "cn-shanghai-d",
  "SupportResources": {
    "SupportResource": [
      {
        "AddressIPVersion": "ipv4",
        "AddressType": "classic_internet"
      },
      {
        "AddressIPVersion": "ipv4",
        "AddressType": "classic_intranet"
      },
      {
        "AddressIPVersion": "ipv4",
        "AddressType": "vpc"
      },
      {
        "AddressIPVersion": "ipv6",
        "AddressType": "classic_internet"
      }
    ]
  },
},
"MasterZoneId": "cn-shanghai-e"
},
{
  "SlaveZoneId": "cn-shanghai-e",
  "SupportResources": {
    "SupportResource": [
      {
        "AddressIPVersion": "ipv4",
        "AddressType": "classic_internet"
      },
      {
        "AddressIPVersion": "ipv4",
        "AddressType": "classic_intranet"
      },
      {
        "AddressIPVersion": "ipv4",
        "AddressType": "vpc"
      }
    ]
  },
},
"MasterZoneId": "cn-shanghai-f"
},
```

```
{
  "SlaveZoneId": "cn-shanghai-g",
  "SupportResources": {
    "SupportResource": [
      {
        "AddressIPVersion": "ipv4",
        "AddressType": "classic_internet"
      },
      {
        "AddressIPVersion": "ipv4",
        "AddressType": "classic_intranet"
      },
      {
        "AddressIPVersion": "ipv4",
        "AddressType": "vpc"
      }
    ]
  },
  "MasterZoneId": "cn-shanghai-f"
},
{
  "SlaveZoneId": "cn-shanghai-f",
  "SupportResources": {
    "SupportResource": [
      {
        "AddressIPVersion": "ipv4",
        "AddressType": "classic_internet"
      },
      {
        "AddressIPVersion": "ipv4",
        "AddressType": "classic_intranet"
      },
      {
        "AddressIPVersion": "ipv4",
        "AddressType": "vpc"
      }
    ]
  },
  "MasterZoneId": "cn-shanghai-g"
}
]
```

Error codes

[See common error codes.](#)

19.Tag management

19.1. TagResources

Creates tags and adds the tags to specified resources.

Note You can add up to 20 tags to each resource. Before you add tags to a resource, Alibaba Cloud checks the number of existing tags of the resource. If the quota is reached, an error message is returned.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	TagResources	The operation that you want to perform. Set the value to TagResources .
RegionId	String	Yes	cn-hangzhou	The ID of the region where the Classic Load Balancer (CLB) instance is created. You can call the DescribeRegions operation to query region IDs.
ResourceId.N	RepeatList	Yes	lb-bp16qjewdsunr41m1****	The ID of Resource N. Valid values of N: 1 to 20.
ResourceType	String	Yes	instance	The type of resource to which you want to add tags. Valid values: instance: a CLB instance certificate: a certificate acl: a network access control list (ACL)
Tag.N.Key	String	No	FinanceDept	The key of Tag N. Valid values of N: 1 to 20. The tag key cannot be an empty string. It can contain 1 to 64 characters in length, and cannot start with <code>acs:</code> or <code>aliyun</code> . It cannot contain <code>http://</code> or <code>https://</code> .

Parameter	Type	Required	Example	Description
Tag.N.Value	String	No	FinanceJoshua	The value of Tag N. Valid values of N: 1 to 20. The tag value can be an empty string. It can contain 1 to 128 characters in length, and cannot start with <code>aliyun</code> or <code>acs:</code> . It cannot contain <code>http://</code> or <code>https://</code> .

Response parameters

Parameter	Type	Example	Description
RequestId	String	C46FF5A8-C5F0-4024-8262-B16B639225A0	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=TagResources
&RegionId=cn-hangzhou
&ResourceId.1=lb-bp16qjewdsunr41m1****
&ResourceType=instance
&Tag.1.Key=FinanceDept
&Tag.1.Value=FinanceJoshua
&<Common request parameters>
```

Sample success responses

XML format

```
<TagResourcesResponse>
  <RequestId>C46FF5A8-C5F0-4024-8262-B16B639225A0</RequestId>
</TagResourcesResponse>
```

JSON format

```
{
  "RequestId": "C46FF5A8-C5F0-4024-8262-B16B639225A0"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

19.2. UntagResources

Disassociates one or more tags from a resource list.

Make the API call

You can use OpenAPI Explorer to make API calls, search for API calls, perform debugging, and generate SDK example code.

Request parameters

Parameter	Type	Required ?	Example value	Description
Action	String	Yes	UntagResources	The name of this action. Value: UntagResources
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the Server Load Balancer (SLB) instance belongs. To query the region ID, call DescribeRegions .
ResourceId.N	RepeatList	Yes	lb-bp16qjewdsunr41m1****	The ID of the resource. Value range of N: 1 to 20.
ResourceType	String	Yes	instance	The type of the resource. Valid values: - instance: SLB instance - certificate: certificate - acl: access control list
All	Boolean	No	true	Indicates whether to disassociate all tags. This parameter is valid only when the TagKey.N parameter is null. Valid values: true false
TagKey.N	RepeatList	No	FinanceDept	The tag value of the resource. Value range of N: 1 to 20. If you specify this parameter, the value of this parameter cannot be a null string. The value can be up to 128 characters in length and cannot start with <code>aliyun</code> or <code>acs:</code>. It cannot contain <code>http://</code> or <code>https://</code>.  Note If you do not specify TagKey, all tags associated with the resource will be disassociated.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	C46FF5A8-C5F0-4024-8262-B16B639225A0	The ID of the request.

Examples

Request example

```
http(s)://[Endpoint]/? Action=UntagResources
&RegionId=cn-hangzhou
&ResourceId.1=lb-bp16qjewdsunr41ml****
&ResourceType=instance
&TagKey.1=FinanceDept
&<CommonParameters>
```

Response example

XML format

```
<UntagResourcesResponse>
  <RequestId>C46FF5A8-C5F0-4024-8262-B16B639225A0</RequestId>
</UntagResourcesResponse>
```

JSON format

```
{
  "RequestId": "C46FF5A8-C5F0-4024-8262-B16B639225A0"
}
```

Errors

For a list of error codes, visit the [API Error Center](#).

19.3. ListTagResources

Queries the tag list of associated instances.

- To determine the search object, the request should include the parameter ResourceId.N or Tag.N (that is, Tag.N.Key and Tag.N.Value).
- Tag.N is a tag and consists of a key-value pair. If only Tag.N.Key is specified, all tag values associated with the specified tag key are returned. If only Tag.N.Value is specified, an error is reported.
- If you specify both Tag.N and ResourceId.N, the specified resource must match all the tag key-value pairs.
- If you specify multiple tag key-value pairs, the resources that match the specified key-value pairs are returned.

Make the API call

You can use OpenAPI Explorer to make API calls, search for API calls, perform debugging, and generate SDK example code.

Request parameters

Parameter	Type	Required ?	Example value	Description
Action	String	Yes	ListTagResources	The name of this action. Value: ListTagResources
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the Server Load Balancer (SLB) instance belongs. To query the region ID, call DescribeRegions .
ResourceType	String	Yes	instance	The type of the resource. Valid values: - Instance: SLB instance - certificate: certificate - acl: access control list
NextToken	String	No	caeba0bbb2be03f84eb48b699f0a4883	The token for the next query.
ResourceId.N	RepeatList	No	lb-bp1qnnvj18yy6h****	The ID of the resource. Value range of N: 1 to 20.
Tag.N.Key	String	No	FinanceDept	The tag key of the resource. Value range of N: 1 to 20. If you specify this parameter, the value of this parameter cannot be a null string. The value can be 64 characters in length and cannot start with <code>aliyun</code> or <code>acs:</code> . It cannot contain <code>http://</code> or <code>https://</code> .

Parameter	Type	Required ?	Example value	Description
Tag.N.Value	String	No	FinanceJoshua	The tag value of the resource. Value range of N: 1 to 20. If you specify this parameter, the value of this parameter cannot be a null string. The value can be 128 characters in length and cannot start with <code>aliyun</code> or <code>acs:</code>. It cannot contain <code>http://</code> or <code>https://</code>.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	DE65F6B7-7566-4802-9007-96F2494AC512	The ID of the request.
NextToken	String	caeba0bbb2be03f84eb48b699f0a4883	The token for the next query.
TagResources	Array		The list of the resources with which the tags are associated.
TagResource			The details of the resource with which the tags are associated.
ResourceId	String	lb-bp16qjewdsunr4*****	The ID of the resource.
ResourceType	String	instance	The type of the resource.
TagKey	String	FinanceDept	The tag key.
TagValue	String	FinanceJoshua	The value of the tag.

Examples

Request example

```
http(s)://[Endpoint]/? Action=ListTagResources
&RegionId=cn-hangzhou
&ResourceType=instance
&ResourceId.1=lb-bp16qjewdsunr41m1****
&<CommonParameters>
```

Response example

XML format

```
<ListTagResourcesResponse>
  <TagResources>
    <TagResource>
      <ResourceType>instance</ResourceType>
      <TagValue>FinanceJoshua</TagValue>
      <ResourceId>lb-bp16qjewdsunr41m1****</ResourceId>
      <TagKey>FinanceDept</TagKey>
    </TagResource>
  </TagResources>
  <NextToken>caeba0bbb2be03f84eb48b699f0a4883</NextToken>
  <RequestId>DE65F6B7-7566-4802-9007-96F2494AC512</RequestId>
</ListTagResourcesResponse>
```

JSON format

```
{
  "TagResources": {
    "TagResource": [
      {
        "ResourceType": "instance",
        "TagValue": "FinanceJoshua",
        "ResourceId": "lb-bp16qjewdsunr41m1****",
        "TagKey": "FinanceDept"
      }
    ]
  },
  "NextToken": "caeba0bbb2be03f84eb48b699f0a4883",
  "RequestId": "DE65F6B7-7566-4802-9007-96F2494AC512"
}
```

Errors

For a list of error codes, visit the [API Error Center](#).

20. Forwarding rule management

20.1. CreateRules

Creates forwarding rules for HTTP or HTTPS listeners.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateRules	The operation that you want to perform. Set the value to CreateRules .
ListenerPort	Integer	Yes	443	The frontend port that is used by the Server Load Balancer (SLB) instance. Valid values: 1 to 65535.
LoadBalancerId	String	Yes	lb-bp1ca0zt07t934w*****	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SLB instance is created. You can call the DescribeRegions operation to query region IDs.

Parameter	Type	Required	Example	Description
RuleList	String	Yes	<pre>[{"RuleName": "Rule2", "Domain": "test.com", "VServerGroupId": "rsp-bp114ni*****"}]</pre>	The forwarding rules to be created. A maximum of 10 forwarding rules can be specified in each request. Each forwarding rule contains the following parameters: • RuleName: Required. The value must be of the STRING type. The name of the forwarding rule. The name must be 1 to 40 characters in length, and can contain only letters, digits, hyphens (-), forward slashes (/), periods (.), and underscores (_). Forwarding rule names must be unique within each listener. • Domain: Optional. The value must be of the STRING type. The domain name to be associated with the forwarding rule. You must specify at least this parameter or Url. • Url: Optional. The URL to be specified in the forwarding rule. The value must be of the STRING type. The URL must be 1 to 80 characters in length, and can contain only letters, digits, hyphens (-), forward slashes (/), periods (.), percent signs (%), question marks (?), number signs (#), and ampersands (&). The URL must not be a single forward slash (/). However, it must start with a forward slash (/). You must specify at least the URL or Domain. • VServerGroupId: Required. The value must be of the STRING type. The ID of the vServer group to be specified in the forwarding rule.  Note You must specify at least <code>Domain</code> or <code>Url</code>. You can also specify both. The combination of <code>Domain</code> and <code>Url</code> must be unique within a listener.

Parameter	Type	Required	Example	Description
ListenerProtocol	String	No	https	The frontend protocol that is used by the SLB instance.  Note This parameter is required when listeners that use different protocols listen on the same port.

Response parameters

Parameter	Type	Example	Description
Rules	Array of Rule		The list of forwarding rules.
Rule			
RuleId	String	rule-bp12jzy0*****	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

Sample requests

```
http(s)://[Endpoint]/?Action=CreateRules
&ListenerPort=443
&LoadBalancerId=lb-bp1ca0zt07t934w*****
&RegionId=cn-hangzhou
&RuleList=[{"RuleName":"Rule2","Domain":"test.com","VServerGroupId":"rsp-bp114ni*****"}]
&<Common request parameters>
```

Sample success responses

`XML` `format`

```
<CreateRulesResponse>
  <RequestId>D63E42FB-F963-4EE5-9B32-05602BF351F3</RequestId>
  <Rules>
    <Rule>
      <RuleId>rule-bp12jzy*****</RuleId>
      <RuleName>Rule3</RuleName>
    </Rule>
  </Rules>
</CreateRulesResponse>
```

JSON format

```
{
  "RequestId": "D63E42FB-F963-4EE5-9B32-05602BF351F3",
  "Rules": {
    "Rule": [
      {
        "RuleId": "rule-bp12jzy*****",
        "RuleName": "Rule3"
      }
    ]
  }
}
```

Error codes

HttpCode	Error code	Error message	Description
400	DomainExist	rule with same domain and url already exists in specified vip	The error message returned because a forwarding rule with the same domain name and URL is already created for the listener.
400	OperationFailed.ListenerStatusNotSupport	The status of the listener does not support this operation. Please try again later.	The error message returned because the listener is in a state that does not support the operation. Try again later.

For a list of error codes, visit the [API Error Center](#).

20.2. DeleteRules

Deletes forwarding rules.

Limits

The RuleIds parameter is required. You can specify up to 10 forwarding rules in each request.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DeleteRules	The operation that you want to perform. Set the value to DeleteRules .
RegionId	String	Yes	cn-hangzhou	The ID of the region where the Server Load Balancer (SLB) instance is deployed. You can call the DescribeRegions operation to query region IDs.
RuleIds	String	Yes	["rule-bp1z9ce*****", "rule-bp1tuc*****4"]	The list of forwarding rules that you want to delete.  Note The RuleIds parameter is required. You can specify up to 10 forwarding rules in each request.

Response parameters

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

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DeleteRules
&RegionId=cn-hangzhou
&RuleIds=["rule-bp1z9ce*****", "rule-bp1tuc*****4"]
&<Common request parameters>
```

Sample success responses

XML format

```
<DeleteRulesResponse>
  <RequestId>9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C</RequestId>
</DeleteRulesResponse>
```

JSON format

```
{
  "RequestId": "9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	OperationFailed.ListenerStatusNotSupport	The status of the listener does not support this operation. Please try again later.	The error message returned because the listener is in a state that does not support the operation. Try again later.

For a list of error codes, visit the [API Error Center](#).

20.3. SetRule

Modifies the forwarding rule of a specified vServer group.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	SetRule	The operation that you want to perform. Set the value to SetRule .
RegionId	String	Yes	cn-hangzhou	The ID of the region where the Classic Load Balancer (CLB) instance is deployed. You can call the DescribeRegions operation to query the region ID.
RuleId	String	Yes	rule-3ejhkt*****	The ID of the forwarding rule.
VServerGroupId	String	Yes	rsp-cige6*****	The ID of the vServer group with which the forwarding rule is associated.

Parameter	Type	Required	Example	Description
RuleName	String	No	doctest	The name of the forwarding rule. The name must be 1 to 80 characters in length, and can contain letters, digits, hyphens (-), forward slashes (/), periods (.), and underscores (_).  Note The name of each forwarding rule must be unique within a listener.
ListenerSync	String	No	off	Specifies whether the forwarding rule uses the scheduling algorithm, session persistence, and health check configurations of the listener. Valid values: on and off. • off: does not use the configurations of the listener. You can customize the health check and session persistence configurations for the forwarding rule. • on: uses the configurations of the listener.
Scheduler	String	No	wrr	This parameter is required and takes effect only when the ListenerSync parameter is set to off. The scheduling algorithm. Default value: wrr. Valid values: • wrr: Backend servers that have higher weights receive more requests than those that have lower weights. • rr: Requests are distributed to backend servers in sequence.
StickySession	String	No	off	This parameter is required and takes effect only when the ListenerSync parameter is set to off. Specifies whether to enable session persistence. Valid values: on and off. • on: enables the feature. • off: disables the feature.

Parameter	Type	Required	Example	Description
StickySessionType	String	No	insert	The method that is used to handle a cookie. This parameter is required and takes effect only when the StickySession parameter is set to on. Valid values: insert: inserts a cookie. CLB inserts the server ID as a cookie into the first HTTP or HTTPS response that is sent to a client. The next request from the client will contain this cookie, and the listener will distribute this request to the recorded backend server. server: rewrites the original cookie. When CLB detects a user-defined cookie, it overwrites the original cookie with the user-defined cookie. The next request from the client will contain the user-defined cookie, and the listener will distribute this request to the recorded backend server.
CookieTimeout	Integer	No	123	The timeout period of the cookie. Unit: seconds. Valid values: 1 to 86400.  Note This parameter is required and takes effect only when the StickySession parameter is set to on and the StickySessionType parameter is set to insert.
Cookie	String	No	23ffsa	The cookie to be configured on the backend server. The cookie must be 1 to 200 characters in length, and can contain ASCII characters and digits. It cannot contain commas (,), semicolons (;), or spaces. It cannot start with a dollar sign (\$).  Note This parameter is required and takes effect only when the StickySession parameter is set to on and the StickySessionType parameter is set to server.

Parameter	Type	Required	Example	Description
HealthCheck	String	No	off	Specifies whether to enable health checks. Valid values: on and off.  Note This parameter is required and takes effect only when the ListenerSync parameter is set to off.
HealthCheckDomain	String	No	www.domain.com	The domain name that is used for health checks. Valid values: • \$_ip: The private IP address of each backend server is used for health checks. If this parameter is set to \$_ip or is not set, CLB 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 contain letters, digits, periods (.), and hyphens (-).  Note This parameter takes effect only when the HealthCheck parameter is set to on.
HealthCheckURI	String	No	/example	The uniform resource identifier (URI) that is used for health checks. This parameter is required and takes effect only when the HealthCheck parameter is set to on.
HealthyThreshold	Integer	No	4	The number of health checks that an unhealthy backend server must consecutively pass before it can be declared healthy. In this case, the health check state is changed from fail to success. Valid values: 2 to 10.  Note This parameter is required and takes effect only when the HealthCheck parameter is set to on.

Parameter	Type	Required	Example	Description
UnhealthyThreshold	Integer	No	4	The number of health checks that a healthy backend server must consecutively fail before it can be declared unhealthy. In this case, the health check state is changed from success to fail. Valid values: 2 to 10.  Note This parameter is required and takes effect only when the HealthCheck parameter is set to on.
HealthCheckTimeout	Integer	No	20	The timeout period of a health check. Unit: seconds. If a backend server does not respond within the specified timeout period, the backend server fails the health check. Valid values: 1 to 300.  Note This parameter is required and takes effect only when the HealthCheck parameter is set to on.
HealthCheckInterval	Integer	No	20	The interval between two consecutive health checks. Unit: seconds. Valid values: 1 to 50.  Note This parameter is required and takes effect only when the HealthCheck parameter is set to on.

Parameter	Type	Required	Example	Description
HealthCheckHttpCode	String	No	http_2xx	The HTTP status code that indicates a successful health check. Separate multiple HTTP status codes with commas (.). Default value: http_2xx. Valid values: http_2xx, http_3xx, http_4xx, and http_5xx.  Note This parameter is required and takes effect only when the HealthCheck parameter is set to on.
HealthCheckConnectPort	Integer	No	80	The port that is used for health checks. Valid values: 1 to 65535.  Note This parameter takes effect only when the HealthCheck parameter is set to on.

Response parameters

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

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=SetRule
&RegionId=cn-hangzhou
&RuleId=rule-3ejhkt*****
&<Common request parameters>
```

Sample success responses

XML **format**

```
<RequestId>9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C</RequestId>
```

JSON **format**

```
{
  "RequestId": "9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

20.4. DescribeRuleAttribute

Queries the configurations of a specified forwarding rule.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeRuleAttribute	The operation that you want to perform. Set the value to DescribeRuleAttribute .
RegionId	String	Yes	cn-hangzhou	The ID of the region where the Server Load Balancer (SLB) instance is deployed. You can call the DescribeRegions operation to query the most recent region list.
RuleId	String	Yes	rule-bp1efemp9****	The ID of the forwarding rule.

Response parameters

Parameter	Type	Example	Description
RuleName	String	Rule1	The name of the forwarding rule.
LoadBalancerId	String	lb-bp1ca0zt07t934wx****	The ID of the SLB instance.
ListenerPort	String	90	The listener port that is used by the SLB instance.
Domain	String	test.com	The domain name that is configured in the forwarding rule.

Parameter	Type	Example	Description
Url	String	/cache	The URL that is configured in the forwarding rule.
VServerGroupId	String	rsp-cige6j****	The ID of the vServer group that is associated with the forwarding rule.
Cookie	String	wwc	The cookie to be configured on the backend server. The cookie must be 1 to 200 characters in length and can contain ASCII letters and digits. It cannot contain commas (,), semicolons (;), or whitespace characters. It cannot start with a dollar sign (\$). If you set the StickySession parameter to on and the StickySessionType parameter to server, this parameter is required.
CookieTimeout	Integer	12	The timeout period of a cookie. Valid values: 1 to 86400. Unit: seconds.  Note If you set the StickySession parameter to on and the StickySessionType parameter to insert, this parameter is required.
HealthCheck	String	off	Specifies whether to enable health checks. Valid values: on and off.  Note If you set the ListenerSync parameter to off, this parameter is required. If you set the parameter to on, the configuration of the listener is used.

Parameter	Type	Example	Description
HealthCheckConnectPort	Integer	23	The port of the backend server that is used for health checks. Valid values: 1 to 65535.  Note If you set the HealthCheck parameter to on, this parameter is required. If you left this parameter empty and the HealthCheck parameter is set to on, the backend port configuration of the listener is used by default.
HealthCheckDomain	String	www.example.com	The domain name that is used for health checks. Valid values: • \$_ip: The private IP address of the backend server. If the \$_ip parameter is set or the HealthCheckDomain parameter is not set, 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. It can contain only letters, digits, periods (.), and hyphens (-).  Note If you set the HealthCheck parameter to on, this parameter is required.
HealthCheckHttpCode	String	http_3xx	The HTTP status code that indicates a successful health check. Separate multiple HTTP status codes with commas (,). Default value: http_2xx. Valid values: http_2xx, http_3xx, http_4xx, and http_5xx.  Note If you set the HealthCheck parameter to on, this parameter is required.

Parameter	Type	Example	Description
HealthCheckInterval	Integer	34	The time interval between two consecutive health checks. Valid values: 1 to 50. Unit: seconds.  Note If you set the HealthCheck parameter to on, this parameter is required.
HealthCheckTimeout	Integer	34	The timeout period of a health check response. If a backend ECS instance does not send an expected response within the specified period of time, the ECS instance is considered unhealthy. Valid values: 1 to 300. Unit: seconds.  Note If the value of the HealthCheckTimeout parameter is smaller than that of the HealthCheckInterval parameter, the value of the HealthCheckTimeout parameter is ignored and the value of the HealthCheckInterval parameter is regarded as the waiting period. If you set the HealthCheck parameter to on, this parameter is required.
HealthCheckURI	String	10.21.22.1	The URI that is used for health checks.  Note If you set the HealthCheck parameter to on, this parameter is required.
HealthyThreshold	Integer	2	The number of consecutive successful health checks that must occur before an unhealthy backend server is declared healthy. In this case, the health check state is changed from fail to success. Valid values: 2 to 10.  Note If you set the HealthCheck parameter to on, this parameter is required.

Parameter	Type	Example	Description
ListenerSync	String	off	Indicates whether the forwarding rule uses the scheduling algorithm, session persistence, and health check configurations of the listener. Valid values: on and off. off: does not use the configurations of the listener. You can customize health check and session persistence configurations for the forwarding rule. on: uses the configurations of the listener.
RequestId	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.
RuleId	String	rule-hfgnd*****	The ID of the forwarding rule.
Scheduler	String	wrr	The scheduling algorithm. Valid values: wrr (default): Backend servers that have higher weights receive more requests than backend servers that have lower weights. rr: Requests are distributed to backend servers in sequence.  Note If you set the ListenerSync parameter to off, this parameter is required. If you set the parameter to on, the configuration of the listener is used.
StickySession	String	off	Indicates whether session persistence is enabled. Valid values: on and off.  Note If you set the ListenerSync parameter to off, this parameter is required. If you set the parameter to on, the configuration of the listener is used.

Parameter	Type	Example	Description
StickySessionType	String	insert	The method that is used to handle a cookie. Valid values: insert: inserts a cookie into the response. SLB inserts a cookie (SERVERID) into the first HTTP or HTTPS response packet that is sent to a client. The next request from the client will contain this cookie, and the listener will distribute this request to the recorded backend server. server: rewrites a cookie. When SLB detects a user-defined cookie, SLB overwrites the original cookie with the user-defined cookie. The next request from the client contains the user-defined cookie, and the listener distributes the request to the recorded backend server.  Note If you set the StickySession parameter to on, this parameter is required.
UnhealthyThreshold	Integer	3	The number of consecutive failed health checks that must occur before a healthy backend server is declared unhealthy. In this case, the health check state is changed from success to fail. Valid values: 2 to 10.  Note If you set the HealthCheck parameter to on, this parameter is required.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeRuleAttribute
&RegionId=cn-hangzhou
&RuleId=rule-bp1efemp9suk5
&<Common request parameters>
```

Sample success responses

 **format**

```
<DescribeRuleAttributeResponse>
  <Domain>test.com</Domain>
  <VServerGroupId>rsp-bp114nimo4kl9</VServerGroupId>
  <LoadBalancerId>lb-bplca0zt07t934wxezyxo</LoadBalancerId>
  <RuleName>Rule2</RuleName>
  <ListenerPort>90</ListenerPort>
  <RequestId>DB3C28EE-9A6C-4FFA-8759-4ED8346A675E</RequestId>
  <ListenerSync>on</ListenerSync>
</DescribeRuleAttributeResponse>
```

JSON format

```
{
  "Domain": "test.com",
  "VServerGroupId": "rsp-bp114nimo4kl9",
  "LoadBalancerId": "lb-bplca0zt07t934wxezyxo",
  "RuleName": "Rule2",
  "ListenerPort": 90,
  "RequestId": "DB3C28EE-9A6C-4FFA-8759-4ED8346A675E",
  "ListenerSync": "on"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

20.5. DescribeRules

Queries the forwarding rules that are configured for a specified listener.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeRules	The operation that you want to perform. Set the value to DescribeRules .
ListenerPort	Integer	Yes	90	The frontend listener port that is used by the Server Load Balancer (SLB) instance. Valid values: 1 to 65535.

Parameter	Type	Required	Example	Description
LoadBalancerId	String	Yes	lb-bp1ca0zt07t934**	The ID of the SLB instance.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the SLB instance is deployed. You can call the DescribeRegions operation to query the most recent region list.
ListenerProtocol	String	No	https	The frontend listener protocol that is used by the SLB instance. Note This parameter is required when listeners that use different protocols listen on the same port.

Response parameters

Parameter	Type	Example	Description
RequestId	String	9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C	The ID of the request.
Rules	Array of Rule		The list of forwarding rules.
Rule			
RuleId	String	rule-tybqi6****	The ID of the forwarding rule.
RuleName	String	Rule2	The name of the forwarding rule. The name must be 1 to 80 characters in length, and can contain only letters, digits, hyphens (-), forward slashes (/), periods (.), and underscores (_). Note The name of each forwarding rule must be unique within a listener.
Domain	String	test.com	The requested domain name specified in the forwarding rule.

Parameter	Type	Example	Description
Url	String	/cache	The requested path specified in the forwarding rule.
VServerGroupId	String	rsp-6cejzl****	The ID of the destination vServer group specified in the forwarding rule.
Cookie	String	23	The cookie that is configured on the backend server. The value must be 1 to 200 characters in length, and can contain only ASCII letters and digits. It cannot contain commas (,), semicolons (;), or spaces. It cannot start with a dollar sign (\$).  Note If you set the <code>StickySession</code> parameter to <code>on</code> and the <code>StickySessionType</code> parameter to <code>server</code>, this parameter is required.
CookieTimeout	Integer	56	The timeout period of a cookie. Valid values: 1 to 86400. Unit: seconds.  Note If you set the <code>StickySession</code> parameter to <code>on</code> and the <code>StickySessionType</code> parameter to <code>insert</code>, this parameter is required.
HealthCheck	String	off	Indicates whether health checks are enabled. Valid values: on and off.  Note If you set the <code>ListenerSync</code> parameter to <code>off</code>, this parameter is required. If you set the parameter to <code>on</code>, the configuration of the listener is used.

Parameter	Type	Example	Description
HealthCheckConnectPort	Integer	45	The port of the backend server that is used for health check. Valid values: 1 to 65535.  Note If you set the HealthCheck parameter to on, this parameter is required. If you left this parameter empty and the HealthCheck parameter is set to on, the backend port configuration of the listener is used by default.
HealthCheckDomain	String	www.domain.com	The domain name that is used for health checks. Valid values: • \$_ip: The private IP address of the backend server. If you do not set this parameter or set the parameter to \$_ip, the SLB instance uses the private IP address of each backend server as the domain name for health checks. • domain: The domain name must be 1 to 80 characters in length. The domain name can contain only letters, digits, periods (.), and hyphens (-).  Note If you set the HealthCheck parameter to on, this parameter is required.
HealthCheckHttpCode	String	http_3xx	The HTTP status code that indicates a successful health check. Multiple HTTP status codes are separated by commas (,). Default value: http_2xx. Valid values: http_2xx, http_3xx, http_4xx, and http_5xx.  Note If you set the HealthCheck parameter to on, this parameter is required.

Parameter	Type	Example	Description
HealthCheckInterval	Integer	5	The time interval between two consecutive health checks. Valid values: 1 to 50. Unit: seconds.  Note If you set the HealthCheck parameter to on, this parameter is required.
HealthCheckTimeout	Integer	34	The timeout period for a health check response. If the backend Elastic Compute Service (ECS) instance does not send an expected response within the specified period of time, the health check fails. Valid values: 1 to 300. Unit: seconds.  Note If the value of the HealthCheckTimeout parameter is smaller than that of the HealthCheckInterval parameter, the value of the HealthCheckTimeout parameter is ignored and the value of the HealthCheckInterval parameter is regarded as the waiting period. If you set the HealthCheck parameter to on, this parameter is required.
HealthCheckURI	String	/example	The URI that is used for health checks.  Note If you set the HealthCheck parameter to on, this parameter is required.
HealthyThreshold	Integer	5	Specifies the number of successful health checks that must be consecutively performed before a backend server can be declared healthy (from fail to success). Valid values: 2 to 10.  Note If you set the HealthCheck parameter to on, this parameter is required.

Parameter	Type	Example	Description
ListenerSync	String	off	Indicates whether the forwarding rule uses the scheduling algorithm, session persistence, and health check configurations of the listener. Valid values: on and off. • off: does not use the configurations of the listener. You can customize health check and session persistence configurations for the forwarding rule. • on: uses the configurations of the listener.
Scheduler	String	wrr	The scheduling algorithm. Valid values: • wrr (default): Backend servers that have higher weights receive more requests than backend servers that have lower weights. • rr: Requests are distributed to backend servers in sequence.  Note If you set the ListenerSync parameter to off, this parameter is required. If you set the parameter to on, the configuration of the listener is used.
StickySession	String	off	Specifies whether to enable session persistence. Valid values: on and off.  Note If you set the ListenerSync parameter to off, this parameter is required. If you set the parameter to on, the configuration of the listener is used.

Parameter	Type	Example	Description
StickySessionType	String	insert	The method that is used to handle a cookie. Valid values: • insert: inserts a cookie into the response. SLB inserts a cookie (SERVERID) into the first HTTP or HTTPS response packet that is sent to a client. The next request from the client will contain this cookie, and the listener will distribute this request to the recorded backend server. • server: rewrites a cookie. When SLB detects a user-defined cookie, SLB overwrites the original cookie with the user-defined cookie. The next request from the client contains the user-defined cookie, and the listener distributes the request to the recorded backend server.  Note If you set the StickySession parameter to on, this parameter is required.
UnhealthyThreshold	Integer	2	Specifies the number of times that a healthy backend server must consecutively fail health checks before it is declared unhealthy (from success to fail). Valid values: 2 to 10  Note If you set the HealthCheck parameter to on, this parameter is required.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeRules
&ListenerPort=90
&LoadBalancerId=lb-bp1ca0zt07t93****
&RegionId=cn-hangzhou
&<Common request parameters>
```

Sample success responses

 **format**

```
<DescribeRulesResponse>
  <RequestId>9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C</RequestId>
  <Rules>
    <Rule>
      <Cookie>23</Cookie>
      <CookieTimeout>56</CookieTimeout>
      <VServerGroupId>rsp-6cejz1*****</VServerGroupId>
      <HealthCheckInterval>5</HealthCheckInterval>
      <UnhealthyThreshold>2</UnhealthyThreshold>
      <HealthCheckURI>/example</HealthCheckURI>
      <Scheduler>wrr</Scheduler>
      <RuleId>rule-tybqi6*****</RuleId>
      <HealthCheck>off</HealthCheck>
      <HealthCheckTimeout>34</HealthCheckTimeout>
      <Url>/cache</Url>
      <StickySession>off</StickySession>
      <HealthCheckConnectPort>45</HealthCheckConnectPort>
      <HealthyThreshold>5</HealthyThreshold>
      <HealthCheckDomain>www.domain.com</HealthCheckDomain>
      <ListenerSync>off</ListenerSync>
      <StickySessionType>insert</StickySessionType>
      <Domain>test.com</Domain>
      <HealthCheckHttpCode>http_3xx</HealthCheckHttpCode>
      <RuleName>Rule2</RuleName>
    </Rule>
  </Rules>
</DescribeRulesResponse>
```

JSON format

```
{
  "DescribeRulesResponse": {
    "RequestId": "9DEC9C28-AB05-4DDF-9A78-6B08EC9CE18C",
    "Rules": {
      "Rule": {
        "Cookie": 23,
        "CookieTimeout": 56,
        "VServerGroupId": "rsp-6cejz1*****",
        "HealthCheckInterval": 5,
        "UnhealthyThreshold": 2,
        "HealthCheckURI": "/example",
        "Scheduler": "wrr",
        "RuleId": "rule-tybqi6*****",
        "HealthCheck": "off",
        "HealthCheckTimeout": 34,
        "Url": "/cache",
        "StickySession": "off",
        "HealthCheckConnectPort": 45,
        "HealthyThreshold": 5,
        "HealthCheckDomain": "www.domain.com",
        "ListenerSync": "off",
        "StickySessionType": "insert",
        "Domain": "test.com",
        "HealthCheckHttpCode": "http_3xx",
        "RuleName": "Rule2"
      }
    }
  }
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

21. Access control

21.1. CreateAccessControlList

Creates a network access control list (ACL).

You can create multiple network ACLs. Each network ACL can contain one or more IP addresses or CIDR blocks. Before you create a network ACL, take note of the following limits:

- You can create a maximum of 50 network ACLs in each region with each account.
- You can add a maximum of 50 IP entries in each request with each account.
- You can add a maximum of 300 IP entries to each network ACL.
- You can associate a maximum of 50 network ACLs with each listener.

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	CreateAccessControlList	The operation that you want to perform. Set the value to CreateAccessControlList .
AclName	String	Yes	rule1	The name of the network ACL. The name must be 1 to 80 characters in length, and can contain only letters, digits, periods (.), hyphens (-), forward slashes (/), and underscores (_). The name of the network ACL that you create must be unique within each region.
RegionId	String	Yes	cn-hangzhou	The ID of the region where you want to create the network ACL.

Parameter	Type	Required	Example	Description
AddressIPVersion	String	No	ipv4	The IP version. Valid values: ipv4 and ipv6 .  Note You can create high-performance IPv6 SLB instances in only the following zones: Hangzhou Zone E and Hangzhou Zone F, Beijing Zone F and Beijing Zone G, Shenzhen Zone D and Shenzhen Zone E, and all zones in the China (Shanghai) region.
ResourceGroupId	String	No	rg-atstuj3rt*****	The ID of the resource group to which the network ACL belongs.

Response parameters

Parameter	Type	Example	Description
AclId	String	acl-rj9xpzxcwxrukois***** **	The ID of the network ACL.
RequestId	String	988CB45E-1643-48C0-87B4-928DDF77EA49	The ID of the request.

Examples

Sample requests

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

Sample success responses

XML format

```
<CreateAccessControlListResponse>
  <RequestId>988CB45E-1643-48C0-87B4-928DDF77EA49</RequestId>
  <AclId>acl-rj9xpzxcwxrukois*****</AclId>
</CreateAccessControlListResponse>
```

JSON format

```
{
  "AclId": "acl-rj9pxzcxrukoi*****",
  "RequestId": "988CB45E-1643-48C0-87B4-928DDF77EA49"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

21.2. 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=DeleteAccessControlList
&AclId=acl-bp110kk4gxce43kz*****
&RegionId=cn-hangzhou
&<CommonParameters>
```

Response examples

XML format

```
<DeleteAccessControlListResponse>
  <RequestId>988CB45E-1643-48C0-87B4-928DDF77EA49</RequestId>
</DeleteAccessControlListResponse>
```

JSON format

```
{
  "RequestId": "988CB45E-1643-48C0-87B4-928DDF77EA49"
}
```

Error codes

See [common error codes](#).

21.3. DescribeAccessControlLists

Queries network access control lists (ACLs).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeAccessCo ntrollLists	The operation that you want to perform. Set the value to DescribeAccessControlLists .
RegionId	String	Yes	cn-hangzhou	The ID of the region where the network ACL is created. You can call the DescribeRegions operation to query region IDs.

Parameter	Type	Required	Example	Description
AclName	String	No	rule1	NetworkACLName. The name of the network ACL. The name must be 1 to 80 characters in length, and can contain only letters, digits, periods (.), hyphens (-), forward slashes (/), and underscores (_). The name of the network ACL must be unique within each region.
AddressIPVersion	String	No	ipv4	The IP version of the SLB instance with which the network ACL is associated. Valid values: ipv4: specifies a Server Load Balancer (SLB) instance that uses an IPv4 address. ipv6: specifies an SLB instance that uses an IPv6 address.
PageSize	Integer	No	10	The number of entries to return on each page. Maximum value: 50 . Default value: 10 .
PageNumber	Integer	No	1	The number of the page to return. Default value: 1 .
ResourceGroupId	String	No	rg-atstuj3rtop*****	The ID of the resource group.

Response parameters

Parameter	Type	Example	Description
Acls	Array of Acl		The list of network ACLs.
Acl			
AclId	String	acl-bp1l0kk4gxce43k*****	The ID of the network ACL.
AclName	String	rule1	The name of the network ACL.
AddressIPVersion	String	ipv4	The IP version that is used by the associated SLB instance.
ResourceGroupId	String	rg-jfenf*****	The ID of the resource group.

Parameter	Type	Example	Description
Count	Integer	5	The number of network ACLs on the current page.
PageNumber	Integer	2	The number of the returned page. Minimum value: 1. Default value: 1.
PageSize	Integer	3	The number of entries returned per page. Default value: 50.
RequestId	String	3CB646EF-6147-4566-A9D9-CE8FBE86F971	The ID of the request.
TotalCount	Integer	3	The number of network ACLs.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeAccessControlLists
&RegionId=cn-hangzhou
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeAccessControlListsResponse>
  <RequestId>3CB646EF-6147-4566-A9D9-CE8FBE86F971</RequestId>
  <Acls>
    <Acl>
      <AclId>acl-bp1j9vn2g7wm9wn0*****</AclId>
      <AclName>test</AclName>
      <AddressIPVersion>ipv4</AddressIPVersion>
    </Acl>
    <Acl>
      <AclId>acl-bp1l0kk4gxce43*****</AclId>
      <AclName>doctest</AclName>
      <AddressIPVersion>ipv4</AddressIPVersion>
    </Acl>
  </Acls>
</DescribeAccessControlListsResponse>
```

JSON format

```
{
  "RequestId": "3CB646EF-6147-4566-A9D9-CE8FBE86F971",
  "Acls": {
    "Acl": [
      {
        "AclId": "acl-bp1j9vn2g7wm9wn0****",
        "AclName": "test",
        "AddressIPVersion": "ipv4"
      },
      {
        "AclId": "acl-bp1l0kk4gxce43*****",
        "AclName": "doctest",
        "AddressIPVersion": "ipv4"
      }
    ]
  }
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

21.4. DescribeAccessControlListAttribute

Queries the configurations of a network access control list (ACL).

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	DescribeAccessControlListAttribute	The operation that you want to perform. Set the value to DescribeAccessControlListAttribute .
AclId	String	Yes	acl-bp1l0k*****kzet04s	The ID of the network ACL that you want to query.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the network ACL is created. You can call the DescribeRegions operation to query region IDs.
AclEntryComment	String	No	test	The description of the network ACL entry.

Response parameters

Parameter	Type	Example	Description
AclEntrys	Array of AclEntry		The information about the network ACL entries.
AclEntry			
AclEntryComment	String	The network ACL entry.	The description of the network ACL entry.
AclEntryIP	String	192.168.0.1	The IP address specified in the network ACL entry.
AclId	String	acl-bp1l0k*****kzet04s	The ID of the network ACL.
AclName	String	doctest	The name of the network ACL.
AddressIPVersion	String	ipv4	The IP version of the instance with which the network ACL is associated.
RelatedListeners	Array of RelatedListener		The list of listeners with which the network ACL is associated.
RelatedListener			
AclType	String	white	The type of network ACL. Valid values: black: a blacklist. white: a whitelist.
ListenerPort	Integer	443	The frontend port of the listener with which the network ACL is associated.
LoadBalancerId	String	lb-bp13j*****1miup	The ID of the Server Load Balancer (SLB) instance.
Protocol	String	https	The type of protocol that the associated listener uses.
RequestId	String	C9906A1D-86F7-4C9C-A369-54DA42EF206A	The ID of the request.

Parameter	Type	Example	Description
ResourceGroupId	String	rg-*****	The ID of the enterprise resource group.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeAccessControlListAttribute
&AclId=acl-bp1l0k*****kzet04s
&RegionId=cn-hangzhou
&<Common request parameters>
```

Sample success responses

XML format

```
<DescribeAccessControlListAttributeResponse>
  <AclEntrys>
    <AclEntry>
      <AclEntryIP>192.168.0.1</AclEntryIP>
      <AclEntryComment>The network ACL entry. </AclEntryComment>
    </AclEntry>
  </AclEntrys>
  <ResourceGroupId>rg-*****</ResourceGroupId>
  <RequestId>C9906A1D-86F7-4C9C-A369-54DA42EF206A</RequestId>
  <AddressIPVersion>ipv4</AddressIPVersion>
  <AclId>acl-bp1l0k*****kzet04s</AclId>
  <RelatedListeners>
    <RelatedListener>
      <ListenerPort>443</ListenerPort>
      <AclType>white</AclType>
      <LoadBalancerId>lb-bp13j*****1miup</LoadBalancerId>
      <Protocol>https</Protocol>
    </RelatedListener>
  </RelatedListeners>
  <AclName>doctest</AclName>
</DescribeAccessControlListAttributeResponse>
```

JSON format

```
{
  "AclEntrys":
  {
    "AclEntry":
    [
      {
        "AclEntryIP": "192.168.0.1",
        "AclEntryComment": "The network ACL entry."
      }
    ],
    "ResourceId": "rg-*****",
    "RequestId": "C9906A1D-86F7-4C9C-A369-54DA42EF206A",
    "AddressIPVersion": "ipv4",
    "AclId": "acl-bp1l0k*****kzet04s",
    "RelatedListeners":
    {
      "RelatedListener":
      [
        {
          "ListenerPort": "443",
          "AclType": "white",
          "LoadBalancerId": "lb-bp13j*****1miup",
          "Protocol": "https"
        }
      ],
      "AclName": "doctest"
    }
  }
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

21.5. AddAccessControlListEntry

Adds entries to an access control list (ACL).

Each ACL can contain one or more IP addresses or CIDR blocks. The limits on ACLs are:

- The number of IP addresses that can be added to an ACL with each account at a time: 50
- The maximum number of entries that each ACL can contain: 300

Debugging

OpenAPI Explorer automatically calculates the signature value. For your convenience, we recommend that you call this operation in OpenAPI Explorer. OpenAPI Explorer dynamically generates the sample code of the operation for different SDKs.

Request parameters

Parameter	Type	Required	Example	Description
-----------	------	----------	---------	-------------

Parameter	Type	Required	Example	Description
Action	String	Yes	AddAccessControlListEntry	The operation that you want to perform. Set the value to AddAccessControlListEntry .
AclId	String	Yes	acl-bp1l0kk4gxce43kze*****	The ID of the ACL.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the ACL is created.
AclEntries	String	No	[{"entry": "10.0.0.0/24", "comment": "privaterule1"}, {"entry": "192.168.0.0/16", "comment": "privaterule2"}]	The ACL settings. - entry: the entries that you want to add to the ACL. You can add CIDR blocks. Separate multiple CIDR blocks with commas (,). - comment: the comment that you want to add to the ACL.  Note You can add at most 50 entries to an ACL each time. If the entry that you want to add to an ACL already exists, the entry is not added. The entries that you add must be CIDR blocks.

Response parameters

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

Examples

Sample request

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

Sample success responses

XML format

```
<AddAccessControlListEntryResponse>
  <RequestId>988CB45E-1643-48C0-87B4-928DDF77EA49</RequestId>
</AddAccessControlListEntryResponse>
```

JSON format

```
{
  "RequestId": "988CB45E-1643-48C0-87B4-928DDF77EA49"
}
```

Error codes

For a list of error codes, visit the [API Error Center](#).

21.6. 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-bp110kk4gxce43kzet04s	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 .
AclEntries	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-bp110kk4gxce43kzet04s
&RegionId=cn-hangzhou
&AclEntrys=[{"entry":"10.0.0.0/24","comment":"privaterule1"}]
&<CommonParameters>
```

Response examples

XML **format**

```
<RemoveAccessControlListEntryResponse>
  <RequestId>988CB45E-1643-48C0-87B4-928DDF77EA49</RequestId>
</RemoveAccessControlListEntryResponse>
```

JSON **format**

```
{
  "RequestId": "988CB45E-1643-48C0-87B4-928DDF77EA49"
}
```

Error codes

[See common error codes.](#)

22. Access control (earlier version)

22.1. 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.
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=RemoveListenerWhiteListItem
&ListenerPort=80
&LoadBalancerId=lb-8vb86hxio8lvsja86jaz
&SourceItems=1.1.1.1
&<CommonParameters>
```

Response examples

XML format

```
<RemoveListenerWhiteListItemResponse>
  <RequestId>CEF72CEB-54B6-4AE8-B225-F876FF7BA984</RequestId>
</RemoveListenerWhiteListItemResponse>
```

JSON format

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

Error codes

See [common error codes](#).

22.2. 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=AddListenerWhiteListItem
&ListenerPort=80
&LoadBalancerId=139a00604ad-cn-east-hangzhou-01
&SourceItems=1.1.1.1,1.1.1.0/21
&<CommonParameters>
```

Response examples

XML format

```
<AddListenerWhiteListItemResponse>
  <RequestId>CEF72CEB-54B6-4AE8-B225-F876FF7BA984</RequestId>
</AddListenerWhiteListItemResponse>
```

JSON format

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

Error codes

See [common error codes](#).

22.3.

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	DescribeListenerAccessControlAttribute	The name of this action. Value: DescribeListenerAccessControlAttribute
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 .
ListenerPort	Integer	Yes	80	The frontend port used by the SLB instance. Value range: 1 to 65535
LoadBalancerId	String	Yes	lb-8vb86hxio8lvsja86jaz	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": "365F4154-92F6-4AE4-92F8-7FF34B540710",
  "SourceItems": "1.1.1.1,1.1.1.0/24",
  "AccessControlStatus": "open_white_list"
}
```

Error codes

[See common error codes.](#)

22.4. 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

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 .
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

```
<SetListenerAccessControlStatusResponse>
  <RequestId>CEF72CEB-54B6-4AE8-B225-F876FF7BA984</RequestId>
</SetListenerAccessControlStatusResponse>
```

JSON **format**

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

Error codes

[See common error codes.](#)

23.Common error codes

HTTP status code	Error code	Error message	Description
400	ServiceIsConfiguring	A previous configuration is pending; please try again later.	A previous configuration has not been completed. Please try again later.
400	VServerGroupProcessing	A previous configuration of the VServer group is pending; please try again later.	A previous configuration of the VServer group has not been completed. Please try again later.
400	OperationBusy	A previous operation is pending.	A previous operation is waiting to be completed. Please try again later.
400	LX_REQUEST_TOKEN_CONFLICT	The ClientToken is conflict.	The client token conflicts with another token.
400	CommodityCodeNotExists	The account can't get CommodityCode.	Failed to obtain the CommodityCode. Please try again later.
400	PAY.PAY_ORDER_FAILED	The account failed to pay order.	The account failed to pay the order.
400	PAY.INVALID_CREDIT_CARD	The account Credit card is invalid.	The credit card is invalid.
400	PAY.REFUND_FAILED	The account failed to Refund.	Failed to refund the money to the account.
400	PAY.WITHHOLDING_AGREEMENT_ILLEGAL	The account withholding agreement is illegal.	The withholding agreement of the account is invalid.
400	PAY.COUPON_NOT_EXIST	The account coupon doesn't exist.	The specified coupon does not exist.
400	PAY.STORED_CARD_NOT_EXIST	The account stored card doesn't exist.	The specified stored-value card of the account does not exist.
400	PAY.ACCOUNT_BOOK_NOT_EXIST	The account Book doesn't exist.	The specified reservation of the account does not exist.
400	PAY.TAX_CALC_FAILED	The account Tax failed to calculate.	Failed to calculate the tax of the account.
400	PAY.COUPON_NOT_MEET_CONSUMPTION_RULE	The account coupon doesn't meet consumption rule.	The coupon cannot be used, because it does not meet the rules.
400	PAY.USER_DECLINED	The account declined to pay.	The payment is declined by the account.

HTTP status code	Error code	Error message	Description
400	PAY.INVALID_AMOUNT	The account amount is invalid.	The payment amount is invalid.
400	PAY.AMOUNT_LIMIT_EXCEEDED	The account amount limit exceeded.	The number of accounts has reached the limit.
400	PAY.CURRENCY_NOT_SUPPORTED	The account Currency doesn't support.	The specified currency is not supported.
400	PAY.CURRENCY_INCONSISTENCY	The account Currency is inconsistency.	You must use the required currency.
400	PAY.NO_CREDIT_CARD	The account doesn't have Credit Card.	You must link a credit card to the account.
400	PAY.GET_PAY_URL_ERROR	The account failed to get Pay Url.	Failed to obtain the URL used for payment.
400	PAY.PAYMENT_PARAMETER_INVALID	The account payment parameters are invalid.	The payment parameters of the account are invalid.
400	PAY.QUERY_QUOTA_BOOK_FAILED	The account failed to query quota book.	Failed to query the quota of the account.
400	PRODUCT.INSTANCE_RELEASED	The Instance is released.	The specified instance is already released.
400	PRODUCT.INSTANCE_TYPE_NOT_EXIST	The Instance type doesn't exist.	The specified instance type does not exist.
400	PRODUCT.INSTANCE_TYPE_NOT_SUPPORTED	The Instance type doesn't support.	The specified instance type is not supported.
400	PRODUCT.NOT_AVAILABLE_ZONE	The Instance zone id doesn't support.	The specified zone ID is not supported.
400	PRODUCT.INSUFFICIENT_STOCK	The product stock is insufficient.	The request failed due to the shortage of stocks.
400	PURCHASE.NO_VALID_PURCHASE	The purchase is invalid.	The purchase failed.
400	PURCHASE.PURCHASE_QUERY_FAILED	The purchase failed to query.	Failed to query the purchase.
400	ORDER.ORDER_AMOUNT_ILLEGAL	The order amount is illegal.	The number of orders is invalid.
400	ORDER.NOT_ENOUGH_ACTIVITY_STOCK	The order activity stock is not enough.	The request failed due to the shortage of stocks.

HTTP status code	Error code	Error message	Description
400	ORDER.SYS_CONSTRAINT_INVALID	The order system constraint is invalid.	The attributes of the product in the order failed to pass the constraint verification.
400	ORDER.QUANTITY_INVALID	The maximum number of SLB instances is exceeded.	The number of SLB instances has reached the limit.
400	ORDER.PERIOD_INVALID	The order period is invalid.	The payment cycle is invalid.
400	ORDER.BID_USER_ORDER_FORBIDDEN	The order of bid user is forbidden.	Bid users are not allowed to place orders.
400	ORDER.ACCOUNT_STATUS_ILLEGAL	The order account status is illegal.	The status of the account does not permit the order.
400	ORDER.QUOTA_EXCEEDED	The order quota exceeded.	The total number of instances has reached the quota. To increase the quota, open a ticket.
400	ORDER.OPEND	The account order is open to buy loadbalancer.	You must activate the SLB service for the account.
400	ORDER.NO_REAL_NAME_AUTHENTICATION	The account is not real name authentication.	The account must pass the real-name verification.
400	ORDER.ARREARAGE	The account is arrearage.	The balance of your account is insufficient. Please update the status of your account and try again.
400	ORDER.INSTANCE_HAS_INACTIVE_CHANGE	The instance has inactive change.	An invalid order of instance specification change exists.
400	ORDER.INST_HAS_UNSETTLED_BILLS	The instance has unsettled bills.	The instance has unsettled bills.
400	ORDER.INST_HAS_UNPAID_ORDER	The instance has unpaid order.	The instance has unpaid bills.
400	PRICE.PRICING_PLAN_NOT_FOUND	The instance pricing plan is not found.	Failed to find the pricing plan of the specified instance.
400	PRICE.PRICING_PLAN_RESULT_NOT_FOUND	The instance pricing plan result is not found.	Failed to find the pricing plan of the specified instance. Please open a ticket.
400	PRICE.TAXING_ERROR	The instance pricing tax is error.	The price tax of the instance is invalid.
400	PRICE.INVALID_INQUIRY_PARAMETER	The instance pricing inquiry parameter is invalid.	The instance pricing query parameter is invalid.

HTTP status code	Error code	Error message	Description
400	PRICE.INQUIRY_FAILED	The instance pricing inquiry is failed.	Failed to query the pricing of the specified instance.
400	COMMODITY.INVALID_COMPONENT	The instance component is invalid.	The instance component is invalid.
400	AUTH.RAM_AUTH_FAILED	The ram authentication of sub-user is failed.	The access control authentication of the RAM user failed.
400	RISK.RISK_CONTROL_REJECTION	The account is rejected by risk control system.	The account is rejected by the risk control system.
400	CreateOrderFailed	The account failed to create order.	Failed to create the order.
400	OrderFailed	The account failed to create order.	Failed to create the order. Please try again later.
400	ARREARAGE	The account has some ARREARAGE.	The account has overdue bills.
400	INSUFFICIENT_BALANCE	The account Balance is insufficient.	The balance of the account is insufficient.
400	NO_REAL_NAME_AUTHENTICATION	The account should be Real Name Authenticated.	The account must pass the real-name verification.
400	INVALID_COMPONENT	This account can't buy such type loadbalancer.	The account is not allowed to buy the specified type of instance. Please choose a different instance type.
400	NOCARD	User Profile doesn't have card.	You must link the account to a bank card first.
400	RuleNotSupport	Rule is not support in the tcp type listener.	TCP listeners do not support forwarding rules.
400	UserProfileNotComplete	User profile is not completed.	You must provide required user information first.
400	InvalidParameter	Invalid parameter in the request.	One or more parameters in the request are invalid.
400	URLNotSupport	the URL in the rule is invalid.	The specified URL in the rule is invalid. Please check if the URL is correct.
409	ServiceIsStopping	The specified Listener is stopping, please retry later.	The specified listener is being stopped. Please try again later.
400	AccountHasArrearage	Account has some arrearage.	The account has overdue bills.

HTTP status code	Error code	Error message	Description
404	InvalidRuleId.NotFound	Rule does not exist.	The specified rule does not exist.
400	OverQuota	Instance num exceeded Quota.	The number of instances has reached the quota.
400	NoNameAuthentication	Account should be Name Authenticated.	The account must pass the real-name verification.
400	InvalidOwnerAccount	The input parameter OwnerAccount is invalid.	The specified OwnerAccount is invalid.
400	InvalidResourceOwnerAccount	The input parameter ResourceOwnerAccount is invalid.	The specified ResourceOwnerAccount is invalid.
400	InvalidOwnerId	The specified OwnerId or OwnerAccount is invalid.	The specified OwnerId or OwnerAccount is invalid.
400	InvalidOwnerId	The input parameter OwnerId or OwnerAccount is invalid.	The specified OwnerId or OwnerAccount is invalid. Please check if the value is correct.
400	OverQuota	The Total is over the quota.	The total number has reached the quota. Please reduce the number and try again.
400	ServiceUnavailable	The vpc subnet is not exist.	The VPC subnet does not exist or no IP address is available in the CIDR block of the VSwitch. Please check if the value is correct.
400	RegionNotSupport	The specified region not supported.	The specified region is not supported.
400	ListenerNumberOverLimit	The maximum number of listeners is exceeded.	The number of listeners has reached the limit. The number of listeners must be no more than 30.
400	KeyFormatError	The specified ServerCertificate is incorrectly formatted.	The format of the ServerCertificate parameter is incorrect.
400	InvalidParameter	The Lb Name is Not supported.	The specified parameter is invalid.
400	InvalidParameter	The Instance is Not Available.	The specified instance is not available.
449	SystemBusy	The system is busy.	The system is busy. Please try again later.
400	ActionNotAllowed	The action is not allowed.	The operation is not allowed.

HTTP status code	Error code	Error message	Description
400	UserNotAllowed	The user is not allowed, please submit the application.	You are not authorized to perform this operation. Please open a ticket.
400	SourceItemsQuotaOverLimit	The maximum number of SourceItems is exceeded.	The number of IP addresses has reached the limit of the SourceItems parameter. The number of IP addresses cannot exceed 300.
400	ActionNotAllowed	The load balancer instance does not allow to be upgrade.	The specified SLB instance is not allowed to be upgraded.
400	ActionNotAllowed	Locked for any Business Reason.	The SLB instance is locked due to service reasons.
400	ActionNotAllowed	Locked for any Operate Reason.	The instance is locked due to specification change. It will be unlocked at 00:00 the next day.
400	ActionNotAllowed	Listener AccessControl Status is Incorrect.	The access control function of the listener is disabled.
400	InvalidParameter	The Protocol is not Support	The protocol is not supported.
400	InvalidParameter	The listen bandwidth is not Support	The specified bandwidth of the listener is invalid.
400	ActionNotAllowed	The Intranet LB's InternetChargeType is not allowed change to paybybandwidth.	The specified SLB instance is not allowed to be changed to bandwidth-based billing.
403	Forbidden.SubUser	illegal bid	A problem exists with the account.
400	InvalidParameter	The specified resource does not exist.	The specified resource does not exist.
409	BackendServer.configuring	A previous configuration of the load balancer is pending; please try again later.	A previous configuration of the SLB instance has not been completed. Please try again later.
400	ObtainIpFail	The specified BackendServers is invalid; some of the specified backend servers do not exist or are not running.	The specified BackendServers is invalid. Some of the specified backend servers do not exist or are not running. Please check if the value is correct.
503	ServiceUnavailable	The specified region not support VPC.	The specified region does not support VPC.

HTTP status code	Error code	Error message	Description
400	InvalidParameter	the special internet EIP donot support the VPC network type.	The specified EIP does not support the VPC network type.
400	InvalidParameter	The specified load balancer does not support the network type of the ECS instance.	The SLB instance does not support the ECS instance of the specified network type. Please choose an ECS instance of a different network type.
400	InvalidParameter	The specified RegionId does not exist.	The specified RegionId does not exist. Please check if the value is correct.
400	InvalidParameter	The specified vpc cloud instance has deleted	The specified VPC has already been deleted.
400	InvalidParameter	The specified vpc cloud instance is deleteing.	The specified VPC is being deleted.
400	PARAMETER_FIELD_ERROR	The specified param is invalid.	The specified parameter is invalid.
400	InvalidParameter	The vpc info of LB is empty.	The VPC information of the specified instance is empty. Please check if the VPC is valid.
400	InvalidParameter	The vpc Ip is exist.	The specified VPC IP address is in use. Please use another IP address and try again.
400	InvalidParameter	The Ip is not Supported.	The specified IP address is not supported.
400	InvalidParameter	The RsList is illegal.	The specified parameter is invalid.
400	InvalidParameter	The Tunnel id is invalid.	The specified tunnel ID is invalid.
400	InvalidParameter	The Rs IP is empty.	Failed to obtain the IP address of the backend server.
400	InvalidParameter	The VmName is empty.	You must specify the ServerId.
400	InvalidParameter	The App id is invalid.	The specified app ID is invalid.
400	InvalidParameter	The Vgw ip is empty.	You must specify the Virtual Gateway IP address.
400	InvalidParameter	The vm address is not Support.	The IP address of the backend server does not permit this operation. Please change the IP address of the backend server and try again.

HTTP status code	Error code	Error message	Description
400	InvalidParameter	The site is not exist.	The specified primary and secondary zones are invalid.
400	InvalidParameter	The serviceUnit and eip is not match.	The service unit and EIP do not match.
400	InvalidParameter	The vgw ip is not support.	The specified Virtual Gateway IP address does not support this operation.
503	ServiceUnavailable	Illegal Service.	The service is unavailable.
503	ServiceUnavailable	Vpc Service error.	A VPC service error has occurred. Please check the parameter and try again.
503	ServiceUnavailable	System exception.	A system error has occurred. Please try again.
500	InternalServerError	Illegal sign.	The system is busy. Please try again later.
500	InternalServerError	Query ecs info fail.	Failed to query the ECS information.
500	InternalServerError	Illegal timestamp.	The specified timestamp is invalid.
500	InternalServerError	Illegal format.	The format is invalid.
500	InternalServerError	Illegal user.	The user is illegal.
500	InternalServerError	Illegal sign type.	The signature type is invalid.
500	InternalServerError	Illegal aliyun idkp.	The account credentials are invalid.
503	ServiceUnavailable	The cloud instance id is invaild.	The specified instance ID is invalid.
400	InvalidParameter	The type is invalid.	The specified type is invalid. Please check if the type permits the operation.
400	InvalidParameter	The lvsgw vip is same.	The specified gateway IP address is in use.
400	InvalidParameter	The resource already exists.	The specified resource already exists.
400	InvalidParameter	The resource status is invalid.	The resource status is invalid.

HTTP status code	Error code	Error message	Description
400	UnsupportedOperationonfixedprotocolport	The operation is not supported by the protocol of the specified port.	The protocol of the specified port does not support the operation. Please check if the protocol of the port is correct.
500	InternalServerError	The request processing has failed due to backend service exception.	The request failed due to an error of the backend service.
400	PrivateKeyEncryption	Key has Encrypted .	Private keys do not need to be encrypted.
400	CertificateNotMatchPrivateKey	Certificate and key does not match.	The certificate and key do not match. Please check if the certificate and key are correct.
400	InvalidParameter	The specified parameter ServerCertificate format is error.	The format of the ServerCertificate is incorrect. Please modify the format and try again.
400	CertificateAndPrivateKeysRefered	Certificate and PrivateKey Is Refered.	The specified certificate is being used by the listener.
400	InvalidParameter	The specified parameter ServerCertificateId is empty.	The specified ServerCertificateId is null.
400	InvalidParameter	The specified parameter ServerCertificateId is not Support.	The specified ServerCertificateId is not supported.
400	InvalidParameter	The specified parameter ServerCertificate or Key is empty.	The specified ServerCertificate or Key is null.
400	InvalidParameter	The specified parameter key format is error.	The format of the key is incorrect.
400	InvalidParameter	The specified port is not valid.	The specified port is invalid.
400	InvalidParameter	The specified bandwidth is not valid.	The specified bandwidth is invalid.
400	VipNotMatchRspool	The vip protocol is not match with Rspool.	The backend server group does not match the listener. Please check the configurations of the backend server group and listener.
400	InvalidParameter	The specified Bandwidth is invalid. It exceeds the maximum bandwidth available to the instance.	The specified bandwidth is invalid. The total bandwidth values of all listeners in the instance has exceeded the maximum bandwidth of the instance.

HTTP status code	Error code	Error message	Description
400	InvalidParameter	The specified Bandwidth is invalid.	The specified bandwidth is invalid. Please check if the bandwidth is correct.
400	InvalidParameter	The specified SourceItems is invalid.	The specified SourceItems is invalid. Please check if the value is correct.
400	VipTooManyListeners	The total number of input listeners exceeds max supported number: 10	Up to 10 listeners can be created for an instance. The number of listeners has exceeded the limit.
400	InvalidParameter	The specified protocol is not valid.	The specified protocol is invalid.
404	InvalidParameter	The specified VServerGroupId does not exist.	The specified VServerGroupId does not exist. Please check if the value is correct.
400	InvalidParameter	Illegal user ID.	The user ID is invalid.
400	InvalidParameter	User ID is null	You must specify the user ID.
400	InvalidParameter	The specified parameter: lb_type is not valid.	The specified lb_type is invalid.
400	InvalidParameter	The specified parameter: mode is not valid..	The specified mode is invalid.
503	ServiceUnavailable	The specified loadbalancer name has been used.	The specified SLB instance name is being used by another instance.
400	TcpNotSupportForHybridLb	Hybrid type loadbalancer doesn't support TCP type listener	Hybrid SLB instances do not support TCP listeners.
400	InvalidParameter	The specified BackendServers is invalid.	The specified BackendServers is invalid. Please check if the value is correct.
400	InvalidParameter	The specified BackendServers is invalid, as the Port value should be in [1, 65535].	The specified BackendServers is invalid. Please make sure that the port number falls into the range of 1 to 65535.
400	UnsupportedOperation	The Loadbalancer doesn't support this function.	SLB does not support this function.
400	TooManyBackendServers	The total number of input real servers exceeds max supported number: 20	Up to 20 backend servers can be specified in one request. The number of specified backend servers has exceeded the limit.

HTTP status code	Error code	Error message	Description
400	InvalidParameter	The specified parameter is not valid.	The specified parameter is invalid. Please check if the value is correct.
400	InvalidParameterLength	The specified parameter length is not valid.	The length of the parameter value is invalid.
400	InvalidAuthorization	The Request is not authorization.	The request is not authorized.
500	InternalInvokeError	The internal invoking has failed due to unknow error.	The request failed to be processed due to unknown errors.
400	OssInstanceDataNotFound	The oss instance of the demand is not exist	The specified OSS instance does not exist.
400	InvalidAuthorizationStatus	The authorization status is not valid.	The authorization status is invalid.
500	InternalInvokeError	The internal invoking has failed.	An internal error has occurred.
400	InsufficientCapacity	There is insufficient capacity available for the requested	The number of SLB instances has reached the quota. To increase the quota, open a ticket.
400	ProcessingSameRequest	The same request is being processed. Please try later.	A same request is being processed. Please try later.
404	InvalidRegionId.NotFound	The specified RegionId does not exist.	The specified RegionId does not exist. Please check if the product is available in the specified region.
404	InvalidServerId.NotFound	The specified ServerId does not exist.	The specified ServerId does not exist. Please check if the value is correct.
503	InvalidParameter	The request has failed due to a temporary failure of the server.	The request failed due to a server failure.
400	InvalidParameter	Specified parameter is not valid.	The specified parameter is invalid.
503	ServiceUnavailable	The request has failed due to a temporary failure of the server now.	The request failed due to a server failure.
400	UnsupportedOperation	The specified action is not supported.	The operation is not supported.
400	ListenerAlreadyExists	A listener with the specified port already exists	The specified port number is already associated with another listener.

HTTP status code	Error code	Error message	Description
404	ListenerNotFound	You have not created a listener for the specified port of the load balancer.	You must create a listener for the specified port of the SLB instance first.
404	CheckedListenerNotFound	No health-checked Listener to the specified port of the Load Balancer.	You must configure health checks for the specified SLB instance first.
400	IpNotAvailable	The specified network type load balancer load balancer .	The specified network type of the SLB instance is invalid. Please check if the value is correct.
400	InvalidWeight.Malformed	A specified weight is not valid.	The specified weight is invalid.
500	IncorrectListenerAccessControlStatusStatus	Current listener access control status does not support this operation.	The access control status of the listener does not permit this operation.
400	MissingParameter	The combination of some parameters violates the spec.	The request parameters are in conflict.
400	UnsupportedParameter	The specified parameter is not unsupported.	One or more parameters are not supported.
403	Forbidden	User not authorized to operate on the specified resource.	You are not authorized to operate on this resource. Please apply for RAM permissions and try again.
400	TooManyBackendServers	The backend server parameter has too many entries.	The number of specified backend servers in a request has exceeded the limit.
403	Forbidden.SubUser	User not authorized to operate on the specified resource as your account is created by another user.	This user is not authorized to operate the resources under the specified account. Please authorize the user first.
400	InvalidBackendServers.Inconsistent	All BackendServers on one Specified LoadBalancer have to be in the same vpc or all classic	All backend servers of an SLB instance must belong to the same VPC or classic network.
400	InvalidServerId.NotFound	The specified server is not found.	The specified backend server does not exist.
400	InvalidIdentity	The request identity was not allowed operated.	The request authentication failed.
400	DomainAlreadyExists	Protected DomainName already exists.	The specified domain name already exists.

HTTP status code	Error code	Error message	Description
400	DomainNotExisted	Don't delete or update not existed protected DomainName.	The specified domain name does not exist.
400	IpListItemFormatError	please check the ip list item format error.	The format of the IP address list is incorrect.
400	SecurityNotSupport	security function not support on this listener.	The specified listener does not support the security function.
400	DomainExist	rule with same domain and url already exists in specified vip	A rule with the same domain name and URL already exists.
400	TooManyRules	the number of rules under specified vip is beyond maximum limit.	The number of rules added for the listener has exceeded the limit.
400	RspoolVipExist	there are vips associating with this vServer group.	The specified VServer group is already associated with another listener. Please disassociate the VServer group first.
400	RspoolRuleExist	there are rules associating with this vServer group.	The specified VServer group is associated with a forwarding rule. Please disassociate the VServer group from the forwarding rule.
400	BackendServersMalformed	the specified parameter BackendServers is unavailable.	The specified BackendServers is invalid.
400	RuleListMalformed	the specified parameter RuleList is unavailable.	The specified RuleList is invalid.
400	DomainMalformed	the specified domain in RuleList parameter is unavailable.	The format of the specified domain is invalid.
400	UrlMalformed	the specified url in RuleList parameter is unavailable.	The specified URL in the RuleList parameter is invalid.
400	NetworkConflict	there are network conflicts in specified parameter.	Networks specified in the parameters conflict with each other. Please check if the values are correct.
400	VServerGroupEmpty	The specified VServerGroupId is invalid; it does not contain vServers.	The specified VServerGroupId is invalid. Make sure that it contains VServers and try again.
400	VpcZoneNotSupportCreate	The specified zone dont not supported .	The specified zone does not support VPC.

HTTP status code	Error code	Error message	Description
400	VpcStatusError	the specified vpc status is creating.	The specified VPC is being created.
400	TagCreateCountLimit	tags create count limit exceeded.	The number of tags has exceeded the quota.
400	TagCountLimit	Tags count limit exceeded.	The number of tags has exceeded the quota.

For a list of error codes, visit the [API Error Center](#).