

# Alibaba Cloud Virtual Private Cloud

API reference

Issue: 20190417

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## Generic conventions

Table -1: Style conventions

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

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



# Contents

---

|                                     |     |
|-------------------------------------|-----|
| Legal disclaimer.....               | I   |
| Generic conventions.....            | I   |
| 1 Virtual Private Cloud (VPC).....  | 1   |
| 1.1 CreateVpc.....                  | 1   |
| 1.2 DeleteVpc.....                  | 5   |
| 1.3 DescribeVpcs.....               | 8   |
| 1.4 ModifyVpcAttribute.....         | 11  |
| 1.5 DescribeVpcAttribute.....       | 14  |
| 2 Call VPC APIs.....                | 19  |
| 3 Common parameters.....            | 22  |
| 4 RAM authentication.....           | 24  |
| 5 Error codes.....                  | 33  |
| 6 VSwitch.....                      | 34  |
| 6.1 DescribeVSwitches.....          | 34  |
| 6.2 ModifyVSwitchAttribute.....     | 38  |
| 6.3 DescribeVSwitchAttributes.....  | 40  |
| 6.4 CreateVSwitch.....              | 43  |
| 6.5 DeleteVSwitch.....              | 48  |
| 7 VRouter.....                      | 51  |
| 7.1 DescribeVRouters.....           | 51  |
| 7.2 ModifyVRouterAttribute.....     | 54  |
| 8 Route table.....                  | 57  |
| 8.1 ModifyRouteTableAttributes..... | 57  |
| 8.2 DescribeRouteTableList.....     | 59  |
| 8.3 DescribeRouteTables.....        | 61  |
| 8.4 CreateRouteTable.....           | 66  |
| 8.5 AssociateRouteTable.....        | 68  |
| 8.6 UnassociateRouteTable.....      | 70  |
| 8.7 DeleteRouteTable.....           | 72  |
| 8.8 CreateRouteEntry.....           | 74  |
| 8.9 DeleteRouteEntry.....           | 81  |
| 9 Router interface.....             | 85  |
| 9.1 CreateRouterInterface.....      | 85  |
| 9.2 DescribeRouterInterfaces.....   | 93  |
| 9.3 ConnectRouterInterface.....     | 100 |
| 9.4 ActivateRouterInterface.....    | 103 |
| 9.5 DeactivateRouterInterface.....  | 105 |
| 9.6 ModifyRouterInterfaceSpec.....  | 107 |

|                                                             |            |
|-------------------------------------------------------------|------------|
| 9.7 ModifyRouterInterfaceAttribute.....                     | 109        |
| 9.8 DeleteRouterInterface.....                              | 113        |
| <b>10 Virtual Border Router.....</b>                        | <b>116</b> |
| 10.1 CreateVirtualBorderRouter.....                         | 116        |
| 10.2 DeleteVirtualBorderRouter.....                         | 121        |
| 10.3 DescribeVirtualBorderRouters.....                      | 124        |
| 10.4 DescribeVirtualBorderRoutersForPhysicalConnection..... | 128        |
| 10.5 ModifyVirtualBorderRouterAttribute.....                | 131        |
| 10.6 TerminateVirtualBorderRouter.....                      | 133        |
| 10.7 RecoverVirtualBorderRouter.....                        | 135        |
| <b>11 VPN Gateway.....</b>                                  | <b>138</b> |
| 11.1 CreateVpnGateway.....                                  | 138        |
| 11.2 DescribeVpnGateways.....                               | 141        |
| 11.3 DescribeVpnGateway.....                                | 145        |
| 11.4 DeleteVpnGateway.....                                  | 148        |
| 11.5 CreateCustomerGateway.....                             | 150        |
| 11.6 DescribeCustomerGateways.....                          | 153        |
| 11.7 DescribeCustomerGateway.....                           | 155        |
| 11.8 DeleteCustomerGateway.....                             | 158        |
| 11.9 ModifyCustomerGatewayAttribute.....                    | 160        |
| 11.10 DescribeVpnConnections.....                           | 163        |
| 11.11 DescribeVpnConnection.....                            | 168        |
| 11.12 DeleteVpnConnection.....                              | 173        |
| 11.13 DownloadVpnConnectionConfig.....                      | 175        |
| 11.14 CreateSslVpnServer.....                               | 179        |
| 11.15 DescribeSslVpnServers.....                            | 183        |
| 11.16 DeleteSslVpnServer.....                               | 187        |
| 11.17 ModifySslVpnServer.....                               | 189        |
| 11.18 DeleteSslVpnClientCert.....                           | 193        |
| 11.19 ModifySslVpnClientCert.....                           | 195        |
| 11.20 ModifyVpnGatewayAttribute.....                        | 198        |
| 11.21 CreateVpnConnection.....                              | 201        |
| 11.22 ModifyVpnConnectionAttribute.....                     | 208        |
| 11.23 CreateSslVpnClientCert.....                           | 215        |
| 11.24 DescribeSslVpnClientCerts.....                        | 218        |
| <b>12 API overview.....</b>                                 | <b>222</b> |
| <b>13 NAT Gateway.....</b>                                  | <b>229</b> |
| 13.1 CreateNatGateway.....                                  | 229        |
| 13.2 CreateBandwidthPackage.....                            | 235        |
| 13.3 DescribeBandwidthPackages.....                         | 239        |
| 13.4 ModifyBandwidthPackageSpec.....                        | 244        |
| 13.5 ModifyBandwidthPackageAttribute.....                   | 246        |
| 13.6 DescribeNatGateways.....                               | 248        |
| 13.7 AddBandwidthPackageIps.....                            | 253        |

|                                                            |            |
|------------------------------------------------------------|------------|
| 13.8 ModifyNatGatewaySpec.....                             | 255        |
| 13.9 RemoveBandwidthPackageIps.....                        | 258        |
| 13.10 ModifyNatGatewayAttribute.....                       | 261        |
| 13.11 DeleteBandwidthPackage.....                          | 263        |
| 13.12 DeleteNatGateway.....                                | 265        |
| 13.13 CreateForwardEntry.....                              | 267        |
| 13.14 DescribeForwardTableEntries.....                     | 272        |
| 13.15 ModifyForwardEntry.....                              | 275        |
| 13.16 DeleteForwardEntry.....                              | 278        |
| 13.17 CreateSnatEntry.....                                 | 280        |
| 13.18 DescribeSnatTableEntries.....                        | 284        |
| 13.19 ModifySnatEntry.....                                 | 287        |
| 13.20 DeleteSnatEntry.....                                 | 289        |
| <b>14 Global Acceleration.....</b>                         | <b>292</b> |
| 14.1 CreateGlobalAccelerationInstance.....                 | 292        |
| 14.2 DescribeGlobalAccelerationInstances.....              | 295        |
| 14.3 ModifyGlobalAccelerationInstanceAttributes.....       | 301        |
| 14.4 ModifyGlobalAccelerationInstanceSpec.....             | 303        |
| 14.5 DeleteGlobalAccelerationInstance.....                 | 305        |
| 14.6 AssociateGlobalAccelerationInstance.....              | 307        |
| 14.7 UnassociateGlobalAccelerationInstance.....            | 311        |
| 14.8 DescribeServerRelatedGlobalAccelerationInstances..... | 312        |
| 14.9 AddGlobalAccelerationInstanceIp.....                  | 315        |
| 14.10 RemoveGlobalAccelerationInstanceIp.....              | 317        |
| <b>15 Internet Shared Bandwidth.....</b>                   | <b>320</b> |
| 15.1 DescribeCommonBandwidthPackages.....                  | 320        |
| 15.2 ModifyCommonBandwidthPackageAttribute.....            | 323        |
| 15.3 CreateCommonBandwidthPackage.....                     | 325        |
| 15.4 AddCommonBandwidthPackageIp.....                      | 328        |
| 15.5 DeleteCommonBandwidthPackage.....                     | 330        |
| 15.6 ModifyCommonBandwidthPackageSpec.....                 | 332        |
| 15.7 RemoveCommonBandwidthPackageIp.....                   | 334        |
| <b>16 EIP.....</b>                                         | <b>337</b> |
| 16.1 ModifyEipAddressAttribute.....                        | 337        |
| 16.2 ModifyEipAddressAttribute.....                        | 338        |
| 16.3 AllocateEipAddress.....                               | 339        |
| 16.4 AssociateEipAddress.....                              | 343        |
| 16.5 UnassociateEipAddress.....                            | 347        |
| 16.6 DescribeEipAddresses.....                             | 349        |
| 16.7 ReleaseEipAddress.....                                | 356        |
| <b>17 Region.....</b>                                      | <b>359</b> |
| 17.1 DescribeZones.....                                    | 359        |
| 17.2 DescribeAccessPoints.....                             | 361        |
| 17.3 DescribeRegions.....                                  | 365        |

|                                                   |            |
|---------------------------------------------------|------------|
| <b>18 Physical connection.....</b>                | <b>368</b> |
| 18.1 CreatePhysicalConnection.....                | 368        |
| 18.2 CancelPhysicalConnection.....                | 371        |
| 18.3 DescribePhysicalConnections.....             | 372        |
| 18.4 ModifyPhysicalConnectionAttribute.....       | 379        |
| 18.5 TerminatePhysicalConnection.....             | 384        |
| 18.6 EnablePhysicalConnection.....                | 385        |
| 18.7 DeletePhysicalConnection.....                | 387        |
| 18.8 ApplyPhysicalConnectionLOA.....              | 389        |
| 18.9 CompletePhysicalConnectionLOA.....           | 392        |
| 18.10 CreatePhysicalConnectionOccupancyOrder..... | 394        |
| 18.11 CreatePhysicalConnectionSetupOrder.....     | 396        |
| 18.12 DescribePhysicalConnectionLOA.....          | 399        |
| <b>19 Border Gateway Protocol (BGP).....</b>      | <b>404</b> |
| 19.1 DescribeBgpNetworks.....                     | 404        |
| 19.2 CreateBgpGroup.....                          | 405        |
| 19.3 DescribeBgpGroups.....                       | 409        |
| 19.4 ModifyBgpGroupAttribute.....                 | 412        |
| 19.5 DeleteBgpGroup.....                          | 416        |
| 19.6 CreateBgpPeer.....                           | 419        |
| 19.7 DescribeBgpPeers.....                        | 422        |
| 19.8 DeleteBgpPeer.....                           | 426        |
| 19.9 AddBgpNetwork.....                           | 429        |
| 19.10 DeleteBgpNetwork.....                       | 432        |



# 1 Virtual Private Cloud (VPC)

---

## 1.1 CreateVpc

Creates a VPC.

Note the following before creating a VPC:

- You must specify the IP address range of the VPC in the form of the CIDR block. You can use the standard private IP address ranges or their subnets as the CIDR block of the VPC. The size of the CIDR block mask can be 8 bits to 24 bits. The default CIDR block is 172.16.0.0/12.
- The CIDR block cannot be modified after the VPC has been created.
- The number of cloud product instances in each VPC cannot exceed 15,000.
- A VRouter and a route table are automatically created after a VPC is created.
- Up to three customer-side CIDR blocks can be added to a VPC. If one customer-side CIDR block is the subset of another CIDR block, the one with the shorter mask takes effect. For example, for the CIDR blocks 10.0.0.0/8 and 10.1.0.0/16, the customer-side CIDR block 10.0.0.0/8 is the CIDR block that takes effect.

### Debug

By using [OpenAPI Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter | Type   | Required? | Example value | Description                                                                              |
|-----------|--------|-----------|---------------|------------------------------------------------------------------------------------------|
| Action    | String | Yes       | CreateVpc     | The name of this action. Value: CreateVpc                                                |
| RegionId  | String | Yes       | cn-hangzhou   | The region ID of the VPC to be created.<br>To query the region ID, call DescribeRegions. |

| Parameter       | Type    | Required? | Example value         | Description                                                                                                                                                                                                                                                                  |
|-----------------|---------|-----------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CidrBlock       | String  | No        | 172.16.0.0/12         | The IP address range of the VPC in the CIDR block form. You can use the following IP address ranges or their subnets:<br><ul style="list-style-type: none"> <li>• 10 . 0 . 0 . 0 / 8</li> <li>• 172 . 16 . 0 . 0 / 12 (default)</li> <li>• 192 . 168 . 0 . 0 / 16</li> </ul> |
| ClientToken     | String  | No        | sha223nodd2333        | A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length.                                                                                             |
| Description     | String  | No        | This is my first Vpc. | The description of the VPC. The description can contain 2-256 characters. It must start with an English letter, but it cannot start with <code>http://</code> or <code>https://</code> .                                                                                     |
| EnableIpv6      | Boolean | No        | 0                     | Indicates whether to enable the IPv6 CIDR block. Default value: false.<br>Valid values: false   true                                                                                                                                                                         |
| Ipv6CidrBlock   | String  | No        | 223.223.213.122       | The IPv6 CIDR block of the VPC.                                                                                                                                                                                                                                              |
| ResourceGroupId | String  | No        | 123                   | The ID of the resource group.                                                                                                                                                                                                                                                |
| UserCidr        | String  | No        | 189.16.0.0/12         | The customer-side CIDR block. Separate multiple CIDR blocks with commas. You can add up to three CIDR blocks.                                                                                                                                                                |

| Parameter | Type   | Required? | Example value | Description                                                                                                                                                                                                                                                                                                           |
|-----------|--------|-----------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VpcName   | String | No        | Vpc-1         | The name of the VPC.<br>The name must be between 2 and 128 characters in length. It can contain uppercase or lowercase letters and numbers. It can also contain periods (.), underscores (_), or hyphens (-). The name must start with a letter. It cannot start with <code>http://</code> or <code>https://</code> . |

### Response parameters

| Parameter       | Type   | Example value                        | Description                   |
|-----------------|--------|--------------------------------------|-------------------------------|
| RequestId       | String | 0ED8D006-F706-4D23-88ED-E11ED28DCAC0 | The ID of the request.        |
| VpcId           | String | vpc-bp15zckdt37pq72zvw30k            | The ID of the VPC.            |
| VRouterId       | String | vrt-bp1lhl0tai krteen80oxx           | The ID of the VRouter.        |
| RouteTableId    | String | vtb-bp145q7gln uzdvzu21pom           | The ID of the route table.    |
| ResourceGroupId | String | rg-acfmxazb4p h6aiy                  | The ID of the resource group. |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=CreateVpc
&RegionId=cn-hangzhou
&CidrBlock=10.10.0.0/24
&CommonParameters
```

#### Response example

- XML format

```
<CreateVpcResponse>
  <ResourceGroupId>rg-acfmxazb4p h6aiy</ResourceGroupId>
</CreateVpcResponse>
```

```

< RequestId > 8B2F5262 - 6B57 - 43F2 - 97C4 - 971425462D FE </
RequestId >
< RouteTable Id > vtb - bp1krxxzp0 c29fmontba l </ RouteTable
Id >
< VRouterId > vrt - bp1jcg5cmx jbl9xgc58b w </ VRouterId >
< VpcId > vpc - bp1qpo0kug 3a20qqe9h7 v </ VpcId >
</ CreateVpcResponse >

```

• JSON format

```

{
  "RequestId ":" 8B2F5262 - 6B57 - 43F2 - 97C4 - 971425462D FE ",
  "ResourceGroupId ":" rg - acfmxazb4p h6aiy ",
  "RouteTable Id ":" vtb - bp1krxxzp0 c29fmontba l ",
  "VpcId ":" vpc - bp1qpo0kug 3a20qqe9h7 v ",
  "VRouterId ":" vrt - bp1jcg5cmx jbl9xgc58b w "
}

```

## Error codes

| HTTP status code | Error code               | Error message                                                   | Description                                                                  |
|------------------|--------------------------|-----------------------------------------------------------------|------------------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound | Specified value of "regionId" is not supported.                 | The specified RegionId does not exist.                                       |
| 400              | InvalidParameter         | Specified CIDR block is not valid                               | The CIDR block is invalid.                                                   |
| 400              | ResourceNotAvailable     | Resource you requested is not available in this region or zone. | You cannot create a VSwitch in this region or zone.                          |
| 400              | InvalidVpcName.Malformed | Specified VPC name is not valid.                                | The format of the name of the specified VPC is invalid.                      |
| 400              | QuotaExceeded.Vpc        | VPC quota exceeded.                                             | The maximum number of VPCs for the account has been reached.                 |
| 403              | Forbidden                | User not authorized to operate on the specified resource.       | You are not authorized to operate on this resource.                          |
| 400              | ResourceNotAvailable.Vpc | Resource you requested is not available in this region or zone. | The resource that you are requesting is not available in the region or zone. |

| HTTP status code | Error code                | Error message                                                | Description                                              |
|------------------|---------------------------|--------------------------------------------------------------|----------------------------------------------------------|
| 400              | InvalidVpcName.Malformed  | Specified VPC name is not valid.                             | The format of the name of the specified VPC is invalid.  |
| 400              | InvalidParameter          | Specified UserCidr invalid format.                           | The specified CIDR block is invalid.                     |
| 400              | InvalidParameter          | Specified UserCidr Subnet mask is not valid .                | The specified subnet mask for UserCidr is invalid.       |
| 400              | InvalidUserCidr.Quota     | Specified UserCidr number is greater than 3.                 | The number of UserCird has reached the quota.            |
| 400              | InvalidUserCidr.Malformed | Specified UserCidr overlapping in of 100.64.0.0/10.          | The specified UserCird overlaps with 100.64.0.0/10.      |
| 500              | InternalError             | The request processing has failed due to some unknown error. | An error occurred while the request was being processed. |

[See common errors](#)

## 1.2 DeleteVpc

Deletes a VPC.

Note the following before deleting a VPC:

- You must release or remove all resources in the VPC, such as VSwitches, instances, router interfaces, and HaVip.
- Only VPCs in the available status can be deleted.

### Debug

By using [OpenAPI Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter | Type   | Required? | Example value | Description                                    |
|-----------|--------|-----------|---------------|------------------------------------------------|
| Action    | String | Yes       | DeleteVpc     | The name of this action. Value: DeleteVpc      |
| RegionId  | String | Yes       | cn-hangzhou   | The ID of the region to which the VPC belongs. |
| VpcId     | String | Yes       | vpc-123456    | The ID of the VPC.                             |

## Response parameters

| Parameter | Type   | Example value                         | Description            |
|-----------|--------|---------------------------------------|------------------------|
| RequestId | String | 0ED8D006-F706-4D23-88ED-E11ED28DCA C0 | The ID of the request. |

## Examples

## Request example

```
https://vpc.aliyuncs.com/?Action=DeleteVpc
&VpcId=vpc-123456
&<CommonParameters>
```

## Response example

## • XML format

```
<DeleteVpcResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCA C0</RequestId>
</DeleteVpcResponse>
```

## • JSON format

```
{
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCA C0"
```

}

## Error codes

| HTTP status code | Error code                           | Error message                                                     | Description                                                                                                |
|------------------|--------------------------------------|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 403              | OperationDenied                      | The operation is not supported in this status.                    | This operation cannot be performed in this status.                                                         |
| 403              | OperationDenied                      | The snapshot creation for the specified disk is not finished yet. | The snapshot creation of the disk has not been completed yet.                                              |
| 400              | IncorrectVpcStatus                   | Current VPC status does not support this operation .              | The current status of VPC does not support this action.                                                    |
| 400              | Dependency Violation. RouteEntry     | Specified object has dependent resources                          | The specified operation failed to delete the VPC due to the custom route entries added to the VPC.         |
| 400              | Dependency Violation. Instance       | Specified object has dependent resources                          | The specified object has associated resources.                                                             |
| 400              | Dependency Violation. VSwitch        | Specified object has dependent resources                          | This VPC has dependent VSwitches and cannot be deleted. Delete all VSwitches in the VPC first.             |
| 400              | Dependency Violation. SecurityGroup  | Specified object has dependent resources                          | This VPC has dependent security groups and cannot be deleted. Delete all security groups in the VPC first. |
| 404              | InvalidVpcId. NotFound               | Specified VPC does not exist.                                     | The specified VPC does not exist.                                                                          |
| 400              | Dependency Violation. RouteInterface | Specified object has dependent route interface .                  | The specified VSwitch has a router interface connected and cannot be deleted.                              |
| 400              | Dependency Violation. Tunnel         | Specified object has dependent tunnel.                            | The specified object has associated tunnels.                                                               |

| HTTP status code | Error code                               | Error message                                                | Description                                                                                                |
|------------------|------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 500              | InternalServerError                      | The request processing has failed due to some unknown error. | An error occurred while the request was being processed.                                                   |
| 400              | Dependency Violation.<br>NatGateway      | Specified object has dependent resources NatGateway.         | The dependent NAT Gateway must be deleted first before the specified VPC can be deleted.                   |
| 400              | Dependency Violation.<br>RouterInterface | Specified object has dependent resources RouterInterface.    | The specified object has associated router interfaces.                                                     |
| 400              | Dependency Violation.<br>SecurityGroup   | Specified object has dependent resources SecurityGroup.      | This VPC has dependent security groups and cannot be deleted. Delete all security groups in the VPC first. |
| 400              | Forbidden.<br>VpcNotFound                | Specified VPC can not found.                                 | The specified VPC does not exist.                                                                          |
| 400              | Forbbiden                                | Active custom route in vpc .                                 | You need to add a custom route entry in the VPC.                                                           |

[See common errors](#)

## 1.3 DescribeVpcs

Query the created VPCs in a region.

Request parameters

| Name     | Type   | Required | Description                                                                                           |
|----------|--------|----------|-------------------------------------------------------------------------------------------------------|
| Action   | String | Yes      | The action to perform. Valid value: DescribeVpcs                                                      |
| RegionId | String | No       | The region where the VPC is located. You can obtain the region ID by calling the DescribeRegions API. |

| Name       | Type    | Required | Description                                                                                                                                                                                                                                                |
|------------|---------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VpcId      | String  | No       | The ID of the VPC.<br>Up to 20 VPCs can be specified. Separate multiple VPCs using commas.                                                                                                                                                                 |
| Isdefault  | Boolean | No       | Whether to query the default VPC in the specified region. Valid value: <ul style="list-style-type: none"><li>· <code>true</code> (Default): Query all VPCs in the specified region.</li><li>· <code>false</code> : Do not query the default VPC.</li></ul> |
| PageNumber | Integer | No       | The number of pages to return. The default value is <code>1</code> .                                                                                                                                                                                       |
| PageSize   | Integer | No       | The number of rows per page. The maximum value is <code>50</code> and the default value is <code>10</code> .                                                                                                                                               |

#### Response parameters

| Name       | Type        | Description                                |
|------------|-------------|--------------------------------------------|
| RequestId  | String      | The ID of the request.                     |
| TotalCount | String      | The number of queried entries.             |
| PageNumber | Integer     | The current page number.                   |
| PageSize   | String      | The number of entries on the current page. |
| Vpcs       | JSON string | The detailed information of the VPC.       |

Table 1-1: Vpc

| Name     | Type   | Description                                                                                                                                                                                        |
|----------|--------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VpcId    | String | The ID of the VPC.                                                                                                                                                                                 |
| RegionId | String | The region where the VPC is located.                                                                                                                                                               |
| Status   | String | The status of the VPC.<br>Valid value: <ul style="list-style-type: none"><li>· <code>Pending</code> : <code>configuring</code></li><li>· <code>Available</code> : <code>available</code></li></ul> |
| VpcName  | String | The name of the VPC.                                                                                                                                                                               |

| Name         | Type    | Description                                       |
|--------------|---------|---------------------------------------------------|
| VSwitchIds   | String  | A list of VSwitches in the VPC.                   |
| CidrBlock    | String  | The CIDR block of the VPC.                        |
| VRouterId    | String  | The ID of the VRouter.                            |
| Description  | String  | The description of the VPC.                       |
| CreationTime | String  | The time when the VPC is created.                 |
| IsDefault    | Boolean | Whether the VPC is the default VPC in the region. |
| UserCidrs    | String  | A list of customer-side CIDR blocks.              |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DescribeVpcs
&RegionId=us-west-1
&CidrBlock=10.10.0.0/24
&CommonParameters
```

### Response example

- XML format

```
<?xml version="1.0" encoding="UTF-8"?>
<CreateVpcResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCA C0</RequestId>
  <RouteTableId>vtb-bp145q7gln-uzdvzu21pomm</RouteTableId>
  <VRouterId>vrt-bp1lhl0tai-krteen80oxxx</VRouterId>
  <VpcId>vpc-bp15zckdt3-7pq72zvw3</VpcId>
</CreateVpcResponse>
```

- JSON format

```
{
  "PageNumber": 1,
  "Vpcs": {
    "VPC": [
      {
        "VpcName": "vpc1",
        "Description": "",
        "IsDefault": false,
        "ResourceGroupId": "rg-acfmxazb4p-h6aiy",
        "UserCidrs": {
          "UserCidr": []
        }
      }
    ]
  }
}
```

```

    },
    "NatGatewayIds": {
      "NatGatewayIds": [ ]
    },
    "RouterTableIds": {
      "RouterTableIds": [
        "vtb-bp145q7gln-uzdvzu21po-m"
      ]
    },
    "VpcId": "vpc-bp15zckdt3-7pq72zvw30-k",
    "VRouterId": "vrt-bp1lhl0tai-krteen80ox-x",
    "CreationTime": "2018-04-18T15:02:37Z",
    "Status": "Available",
    "CidrBlock": "10.0.0.0/24",
    "VswitchIds": {
      "VSwitchId": [ ]
    },
    "RegionId": "cn-hangzhou"
  },
  "TotalCount": 1,
  "PageSize": 10,
  "RequestId": "9B941224-B647-4644-A746-641906D6B954"
}

```

## 1.4 ModifyVpcAttribute

Modifies the name and description of a VPC.

### Debug

By using [OpenAPI Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter | Type   | Required? | Example value              | Description                                        |
|-----------|--------|-----------|----------------------------|----------------------------------------------------|
| Action    | String | Yes       | ModifyVpcAttribute         | The name of this action. Value: ModifyVpcAttribute |
| RegionId  | String | Yes       | cn-hangzhou                | The region to which the VPC belongs.               |
| VpcId     | String | Yes       | vpc-bp1qtbach57ywecfxxxxxx | The ID of the VPC.                                 |

| Parameter   | Type    | Required? | Example value   | Description                                                                                                                                                                                                                                                    |
|-------------|---------|-----------|-----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CidrBlock   | String  | No        | 192.168.0.0/24  | The CIDR block of the VPC.                                                                                                                                                                                                                                     |
| Description | String  | No        | This is my VPC. | The description of the VPC. The description must be 2 to 256 characters in length. It must start with a letter but cannot start with <code>http ://</code> or <code>https ://</code> .                                                                         |
| EnableIPv6  | Boolean | No        | true            | Indicates whether to enable IPv6 CIDR blocks. Default value: false. Valid values: true   false                                                                                                                                                                 |
| VpcName     | String  | No        | Vpc-1           | The name of the VPC. The name must be 2 to 128 characters in length. It can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter. It cannot start with <code>http ://</code> or <code>https ://</code> . |

### Response parameters

| Parameter | Type   | Example value                         | Description            |
|-----------|--------|---------------------------------------|------------------------|
| RequestId | String | 0ED8D006-F706-4D23-88ED-E11ED28DCA C0 | The ID of the request. |

### Examples

#### Request example

```
https :// vpc . aliyuncs . com /? Action = ModifyVpcA ttribute
& VpcId = vpc - bp1qtbach5 7ywecfxxxx xx
& VpcName = Vpc - 1
&< CommonPara meters >
```

#### Response example

- XML format

```
< ModifyVpcAttributeResponse >
  < RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 </
  RequestId >
</ ModifyVpcAttributeResponse >
```

- JSON format

```
{
  "RequestId ":" 43B72D30 - 25E1 - 4FA3 - 96A8 - 89374A521D 1A "
}
```

## Error codes

| HTTP status code | Error code                | Error message                                        | Description                                             |
|------------------|---------------------------|------------------------------------------------------|---------------------------------------------------------|
| 404              | InvalidVpcId.NotFound     | Specified VPC does not exist.                        | The specified VPC does not exist.                       |
| 400              | InvalidVpcName.Malformed  | Specified VPC name is not valid.                     | The format of the name of the specified VPC is invalid. |
| 400              | InvalidParameter          | Specified UserCidr invalid format.                   | The specified value for UserCidr is invalid.            |
| 400              | InvalidParameter          | Specified UserCidr Subnet mask is not valid .        | The specified subnet mask for UserCidr is invalid.      |
| 400              | InvalidUserCidr.Quota     | Specified UserCidr number is greater than 3.         | The number of UserCidr has reached the quota.           |
| 400              | InvalidUserCidr.Malformed | Specified UserCidr overlapping in of 100.64.0.0/10.  | The specified UserCidr overlaps with 100.64.0.0/10.     |
| 400              | IncorrectVpcStatus        | Current VPC status does not support this operation . | The status of VPC does not support the action.          |

[See common error codes](#)

## 1.5 DescribeVpcAttribute

Queries the configurations of a VPC.

### Debug

By using [OpenAPI Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter | Type    | Required? | Example value              | Description                                                                                                                                                                                    |
|-----------|---------|-----------|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action    | String  | Yes       | DescribeVpcAttribute       | The name of this action. Value: DescribeVpcAttribute                                                                                                                                           |
| RegionId  | String  | Yes       | cn-hangzhou                | The ID of the region where the VPC belongs.                                                                                                                                                    |
| VpcId     | String  | Yes       | vpc-bp18sth14qii3pnvodkv-t | The ID of the VPC to be queried.                                                                                                                                                               |
| IsDefault | Boolean | No        | false                      | Indicates whether the VPC is the default VPC. Valid values: <ul style="list-style-type: none"><li>false : The VPC is not the default VPC.</li><li>true : The VPC is the default VPC.</li></ul> |

### Response parameters

| Parameter      | Type   | Example value          | Description                                              |
|----------------|--------|------------------------|----------------------------------------------------------|
| AssociatedCens | N/A    | N/A                    | A list of CEN instances attached to the VPC.             |
| └CenId         | String | cen-7qthudw0ll6jmc4gsu | The ID of the CEN instance.                              |
| └CenOwnerId    | Long   | 1231579085529123       | The ID of the account to which the CEN instance belongs. |
| └CenStatus     | String | Attached               | The status of the CEN instance.                          |
| CidrBlock      | String | 192.168.0.0/16         | The private CIDR block of the VPC.                       |

| Parameter          | Type    | Example value                                       | Description                                                                                                |
|--------------------|---------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| ClassicLinkEnabled | Boolean | false                                               | Indicates whether the ClassicLink function is enabled.                                                     |
| CloudResources     | N/A     | N/A                                                 | A list of cloud resources under the VPC.                                                                   |
| └ ResourceCount    | Integer | 1                                                   | The number of the resources under the VPC.                                                                 |
| └ ResourceType     | String  | VSwitch                                             | The type of the resources under the VPC.                                                                   |
| CreationTime       | String  | 2018-10-16T07:31:09Z                                | The time at which the VPC was created.                                                                     |
| Description        | String  | VPC                                                 | The description of the VPC.                                                                                |
| Ipv6CidrBlock      | String  | 224.223.234.233/24                                  | The IPv6 CIDR block of the VPC.                                                                            |
| IsDefault          | Boolean | false                                               | Indicates whether the VPC is the default VPC.                                                              |
| RegionId           | String  | cn-hangzhou                                         | The ID of the region to which the VPC belongs.                                                             |
| RequestId          | String  | 7486AE4A-129D-43DB-A714-2432C074BA04                | The ID of the request.                                                                                     |
| ResourceGroupId    | String  | rg-acfmxazb4ph6aiy                                  | The ID of the resource group.                                                                              |
| Status             | String  | Available                                           | The status of the VPC.                                                                                     |
| UserCidrs          | N/A     | 172.16.0.1/24                                       | The customer-side CIDR blocks. Separate CIDR blocks with commas . You can specify up to three CIDR blocks. |
| VRouterId          | String  | vrt-bp1jso6ng1at0ajsc8mbe                           | The ID of the VRouter.                                                                                     |
| VSwitchIds         | N/A     | {"VSwitchId": [ "vsw-bp14cagpfy<br>sr29feg5t97" ] } | A list of VSwitches under the VPC.                                                                         |
| VpcId              | String  | vpc-bp18sth14qii3pnvodkvt                           | The ID of the VPC.                                                                                         |
| VpcName            | String  | doctest2                                            | The name of the VPC.                                                                                       |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DescribeVpcAttribute
&RegionId=cn-hangzhou
&VpcId=vpc-bp18sth14q-ii3pnvodkv-t
&<CommonParameters>
```

### Response example

#### • XML format

```
<DescribeVpcAttributeResponse>
  <VpcName>doctest2</VpcName>
  <Description/>
  <IsDefault>>false</IsDefault>
  <ResourceGroupId>rg-acfmazb4p-h6aiy</ResourceGroupId>
  <UserCidrs/>
  <ClassicLinkEnabled>>false</ClassicLinkEnabled>
  <AssociatedCens>
    <AssociatedCen>
      <CenStatus>Attached</CenStatus>
      <CenOwnerId>1231579085-529123</CenOwnerId>
      <CenId>cen-7qthudw0ll-6jmc4gsu</CenId>
    </AssociatedCen>
  </AssociatedCens>
  <VRouterId>vrt-bp1jso6ng1-at0ajsc8mb-e</VRouterId>
  <VpcId>vpc-bp18sth14q-ii3pnvodkv-t</VpcId>
  <CreationTime>2018-10-16T07:31:09Z</CreationTime>
  <CidrBlock>192.168.0.0/16</CidrBlock>
  <Status>Available</Status>
  <VSwitchIds>
    <VSwitchId>vsw-bp14cagpfy-sr29feg5t9-7</VSwitchId>
  </VSwitchIds>
  <RequestId>7486AE4A-129D-43DB-A714-2432C074BA04</RequestId>
  <RegionId>cn-hangzhou</RegionId>
  <CloudResources>
    <CloudResourceSetType>
      <ResourceType>VSwitch</ResourceType>
      <ResourceCount>1</ResourceCount>
    </CloudResourceSetType>
    <CloudResourceSetType>
      <ResourceType>VRouter</ResourceType>
      <ResourceCount>1</ResourceCount>
    </CloudResourceSetType>
    <CloudResourceSetType>
      <ResourceType>RouteTable</ResourceType>
      <ResourceCount>1</ResourceCount>
    </CloudResourceSetType>
  </CloudResources>
</DescribeVpcAttributeResponse>
```

#### • JSON format

```
{
  "VpcName": "doctest2",
```

```

" Description ":"",
" IsDefault ": false ,
" ResourceGroupID ":" rg - acfmxazb4p h6aiy ",
" UserCidrs ":{
  " UserCidr ":[ ]
},
" ClassicLinkEnabled ": false ,
" Associated Cens ":{
  " Associated Cen ":[
    {
      " CenStatus ":" Attached ",
      " CenOwnerId ":" 1231579085 529123 ",
      " CenId ":" cen - 7qthudw0ll 6jmc4gsu "
    }
  ]
},
" VRouterId ":" vrt - bp1jso6ng1 at0ajsc8mb e ",
" VpcId ":" vpc - bp18sth14q ii3pnvodkv t ",
" CreationTime ":" 2018 - 10 - 16T07 : 31 : 09Z ",
" CidrBlock ":" 192 . 168 . 0 . 0 / 16 ",
" Status ":" Available ",
" VSwitchIds ":{
  " VSwitchId ":[
    " vsw - bp14cagpfy sr29feg5t9 7 "
  ]
},
" RegionId ":" cn - hangzhou ",
" RequestId ":" 7486AE4A - 129D - 43DB - A714 - 2432C074BA 04 ",
" CloudResources ":{
  " CloudResourceSetType ":[
    {
      " ResourceType ":" VSwitch ",
      " ResourceCount ":" 1
    },
    {
      " ResourceType ":" VRouter ",
      " ResourceCount ":" 1
    },
    {
      " ResourceType ":" RouteTable ",
      " ResourceCount ":" 1
    }
  ]
}
}

```

## Error codes

| HTTP status code | Error code          | Error message                                                | Description                                              |
|------------------|---------------------|--------------------------------------------------------------|----------------------------------------------------------|
| 500              | InternalServerError | The request processing has failed due to some unknown error. | An error occurred while the request was being processed. |
| 400              | IncorrectVpcStatus  | Current VPC status does not support this operation.          | The status of VPC does not support this action.          |

| HTTP status code | Error code                | Error message                 | Description                       |
|------------------|---------------------------|-------------------------------|-----------------------------------|
| 404              | InvalidVpcId.<br>NotFound | Specified VPC does not exist. | The specified VPC does not exist. |

[See common error codes](#)

## 2 Call VPC APIs

When a VPC API is called, an HTTP GET request is sent to the endpoint of VPC APIs. You must add corresponding request parameters in the request according to the API description. After the calling, the system returns the handling result. The request and response results are encoded using the UTF-8 character set.

### Request structure

VPC APIs belong to the RPC type. You can call VPC APIs by sending HTTP GET requests.

The request structure is as follows:

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

Where:

- **Endpoint** : The endpoint of VPC APIs is `vpc . aliyuncs . com` .
- **Action** : The action to perform. For example, call `DescribeVpcs` to query all the created VPCs.
- **Version** : The version of the API to use. The current VPC API version is `2016 - 04 - 28` .
- **Parameters** : Request parameters. Use “&” to separate multiple parameters.

Request parameters consist of common parameters and API specific parameters. Common parameters include VPI version, credentials, and so on.

The following is an example using the `DescribeVpcs` API to query the created VPCs:



#### Note:

To make it easy to read, the API request is displayed in the following format:

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

...

## API authorization

For the security of your account, we recommend that you use a RAM user to call APIs. Before using a RAM user to call an API, you must grant the RAM user the corresponding permission to call the API by creating an authorization policy and attaching the policy to the RAM user.

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

## API signature

To ensure the security of your API, you must sign the API request. Alibaba Cloud uses the signature in the request to verify the identity of the person who calls the API.

VPC uses AccessKey ID and AccessKey Secret for symmetrical encryption to verify the identity of the requester. AccessKey is an identity credential issued to Alibaba Cloud accounts and the RAM users (similar to the login password). The AccessKey ID is used to verify the identity of the user, and the AccessKey Secret is used to encrypt the signature string and is also the key used by the server to verify the signature string. The AccessKey Secret must be kept strictly confidential.

For an RPC API, you must add the signature to the API request in the following format:

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

Take the DescribeVpcs API as an example. If the AccessKey ID is `testid`, and the AccessKey Secret is `testsecret`, the original request URL is as follows:

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

Follow these steps to calculate the signature:

### 1. Use the request parameters to create a canonicalized query string to sign.

```
GET %2F&AccessKeyId=testid&Action=DescribeVpcs&Format=XML&SignatureMethod=HMAC-SHA1&SignatureNonce=3ee8c1b8-83d3-44af-a94f-4e0ad82fd6cf&SignatureVersion=1.0&Timestamp=2016-02-23T12:25:30.46Z&Version=2014-05-15
```

.

### 2. Calculate the HMAC value of the string to sign.

Append an ampersand (&) to the AccessKey Secret to use the new string as the key to compute the HMAC. In this example, the key is `testsecret &`.

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

### 3. Add the signature to the request parameters:

```
http://vpc.aliyuncs.com/?Action=DescribeVpcs&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=CT9X0VtwR8 6fNWSnsc6v 8YG0juE %3D
```

## 3 Common parameters

### Common request parameters

The following table describes common request parameters used in most Alibaba Cloud APIs.

Table 3-1: Common request parameters

| Parameter        | Type   | Required? | Description                                                                                                                      |
|------------------|--------|-----------|----------------------------------------------------------------------------------------------------------------------------------|
| Format           | String | No        | The format of the response. Valid values: JSON ( default )   XML                                                                 |
| Version          | String | Yes       | The version of the API. It uses the date format YYYY-MM-DD. Valid value: 2016-04-28                                              |
| AccessKeyId      | String | Yes       | The AccessKey ID of the user who calls the API.                                                                                  |
| Signature        | String | Yes       | The request signature.                                                                                                           |
| SignatureMethod  | String | Yes       | The algorithm used to create the request signature. Valid value: HMAC-SHA1                                                       |
| Timestamp        | String | Yes       | The time at which the request is signed. It uses the format: YYYY-MM-DDThh:mm:ssZ. For example, 2013-01-10T12:00:00Z.            |
| SignatureVersion | String | Yes       | The signature version to use. Valid value: 1.0                                                                                   |
| SignatureNonce   | String | Yes       | A random number for the signature to prevent from network attacks. Different random numbers must be used for different requests. |

### Common response parameters

Alibaba Cloud API responses all use a unified format. A status code of the format 2xx indicates a successful call, and a status code of the 4xx or 5xx format indicates a failed call. For successful calls, returned data can be in a XML or JSON format.

You can specify the format of the returned data when sending a request. The default format is XML.

A `RequestId` is returned no matter if it is successful or not.

- XML format

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

- JSON format

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

## 4 RAM authentication

Before a RAM user can call VPC APIs, the primary account must grant the RAM user the corresponding permission by creating an authentication policy. In the authentication policy, an Alibaba Cloud Resource Name (ARN) is used as the unique identifier of the resource to authorize. This topic overviews ARNs used as unique identifiers of VPC resources.

### VPC resources

The following table lists VPC resources that can be authorized and the corresponding ARN formats. For the following ARN formats, `$regionid/accountid/vrouterid` is the resource ID, and `*` represents all corresponding resources.

| Resource    | ARN formats                                                                      |
|-------------|----------------------------------------------------------------------------------|
| VPC         | <code>acs : vpc :\$ regionid :\$ accountid : vpc /\$ vpcid</code>                |
|             | <code>acs : vpc :\$ regionid :\$ accountid : vpc /*</code>                       |
|             | <code>acs : vpc :*: \$ accountid : vpc /*</code>                                 |
|             | <code>acs : slb :*:*: loadbalanc er /*</code>                                    |
| VRouter     | <code>acs : vpc :\$ regionid :\$ accountid : vrouter /\$ vrouterid</code>        |
|             | <code>acs : vpc :\$ regionid :\$ accountid : vrouter /*</code>                   |
|             | <code>acs : vpc :*: \$ accountid : vrouter /*</code>                             |
| VSwitch     | <code>acs : vpc :\$ regionid :\$ accountid : vswitch /\$ vswitchid</code>        |
|             | <code>acs : vpc :\$ regionid :\$ accountid : vswitch /*</code>                   |
|             | <code>acs : vpc :*: \$ accountid : vswitch /*</code>                             |
| Route Table | <code>acs : vpc :\$ regionid :\$ accountid : routetable /\$ routetable id</code> |
|             | <code>acs : vpc :\$ regionid :\$ accountid : routetable /*</code>                |
|             | <code>acs : vpc :*: \$ accountid : routetable /*</code>                          |
| HaVip       | <code>acs : vpc :\$ regionid :\$ accountid : havip /\$ havipid</code>            |
|             | <code>acs : vpc :\$ regionid :\$ accountid : havip /*</code>                     |

| Resource                      | ARN formats                                                                      |
|-------------------------------|----------------------------------------------------------------------------------|
|                               | acs : vpc :*: \$ accountid : havip /*                                            |
| EIP                           | acs : vpc :\$ regionid :\$ accountid : eip /\$ allocation id                     |
|                               | acs : vpc :\$ regionid :\$ accountid : eip /*                                    |
|                               | acs : vpc :*: \$ accountid : eip /*                                              |
| NAT Gateway                   | acs : vpc :\$ regionid :\$ accountid : natgateway /\$ natgateway id              |
|                               | acs : vpc :\$ regionid :\$ accountid : natgateway /*                             |
|                               | acs : vpc *: \$ accountid : vpc /*                                               |
| NAT Gateway Bandwidth Package | acs : vpc :\$ regionid :\$ accountid : bandwidthp ackage /\$ bandwidthp ackageid |
|                               | acs : vpc :\$ regionid :\$ accountid : bandwidthp ackage /*                      |
|                               | aacs : vpc :*: \$ accountid : vpc /*                                             |
| Forward Table                 | acs : vpc :\$ regionid :\$ accountid : forwardtab le /\$ forwardtab leid         |
|                               | acs : vpc :\$ regionid :\$ accountid : forwardtab le /*                          |
|                               | acs : vpc :*: \$ accountid : vpc /*                                              |
| SNAT Table                    | acs : vpc :\$ regionid :\$ accountid : snattable /\$ snattablei d                |
|                               | acs : vpc :\$ regionid :\$ accountid : snattable /*                              |
|                               | acs : vpc :*: \$ accountid : vpc /*                                              |
| Customer Gateway              | acs : vpc :\$ regionid :\$ accountid : customerga teway /\$ customerga tewayid   |
|                               | acs : vpc :\$ regionid :\$ accountid : customerga teway /*                       |
|                               | acs : vpc :*: \$ accountid : customerga teway /*                                 |
| IPsec Connection              | acs : vpc :\$ regionid :\$ accountid : vpnconnect ion /\$ vpnconnect ionid       |
|                               | acs : vpc :\$ regionid :\$ accountid : vpnconnect ion /*                         |

| Resource                     | ARN formats                                                                                                     |
|------------------------------|-----------------------------------------------------------------------------------------------------------------|
|                              | <code>acs : vpc :*: \$ accountid : vpnconnect ion /*</code>                                                     |
| VPN Gateway                  | <code>acs : vpc :\$ regionid :\$ accountid : vpngateway /\$ vpngateway id</code>                                |
|                              | <code>acs : vpc :\$ regionid :\$ accountid : vpngateway /*</code>                                               |
|                              | <code>acs : vpc :*: \$ accountid : vpngateway /*</code>                                                         |
| Global Acceleration Instance | <code>acs : vpc :\$ regionid :\$ accountid : globalaccelerationinstance /\$ globalaccelerationinstanceid</code> |
|                              | <code>acs : vpc :\$ regionid :\$ accountid : globalaccelerationinstance /*</code>                               |
|                              | <code>acs : vpc :*: \$ accountid : globalaccelerationinstance /*</code>                                         |
| General Expression           | <code>acs : vpc :\$ regionid :\$ accountid :*</code>                                                            |
|                              | <code>acs : vpc :*: \$ accountid :*</code>                                                                      |

## VPC APIs

The following table lists the ARN formats of the APIs that can be authorized.

Where `$ regionid / accountid / vrouterid` is the resource ID, and `*` represents the corresponding resource.

| API                                 | ARN format                                                                                                            |
|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <code>vpc:CreateVpc</code>          | <code>acs : vpc :\$ regionid :\$ accountid : vpc /*</code>                                                            |
| <code>vpc&gt;DeleteVpc</code>       | <code>acs : vpc :\$ regionid :\$ accountid : vpc /\$ vpcid</code>                                                     |
| <code>vpc:DescribeVpcs</code>       | <code>vpc :\$ regionid :\$ accountid : vpc /*</code>                                                                  |
| <code>vpc:ModifyVpcAttribute</code> | <code>acs : vpc :\$ regionid :\$ accountid : vpc /\$ vpcid</code>                                                     |
| <code>vpc:DescribeVRouters</code>   | <code>acs : vpc :\$ regionid :\$ accountid : vrouter /*</code>                                                        |
|                                     | Specify the VRouterId to query: <code>" vpc : Vpc " : " acs : vpc :\$ regionid :\$ accountid : vpc /\$ vpcid "</code> |

| API                        | ARN format                                                                                                   |
|----------------------------|--------------------------------------------------------------------------------------------------------------|
|                            | <b>The VRouterId is not specified:</b> " vpc : Vpc ":"<br>acs : vpc :\$ regionid :\$ accountid : vpc /<br>*" |
| vpc:ModifyVRouterAttribute | acs : slb :*: \$ accountid :*                                                                                |
| vpc:CreateVSwitch          | acs : vpc :\$ regionid :\$ accountid :<br>vswitch /*                                                         |
|                            | acs : vpc :\$ regionid :\$ accountid : vpc /\$<br>vpcid                                                      |
| vpc>DeleteVSwitch          | acs : vpc :\$ regionid :\$ accountid :<br>vswitch /\$ vswitchid                                              |
| vpc:DescribeVSwitches      | acs : vpc :\$ regionid :\$ accountid :<br>vswitch /*                                                         |
|                            | " vpc : Vpc ":" acs : vpc :\$ regionid :\$<br>accountid : vpc /\$ vpcid "                                    |
| vpc:ModifyVSwitchAttribute | acs : vpc :\$ regionid :\$ accountid :<br>vswitch /\$ vswitchid                                              |
| vpc:CreateRouteEntry       | acs : vpc :\$ regionid :\$ accountid :<br>routetable /\$ routetable id                                       |
| vpc>DeleteRouteEntry       | acs : vpc :\$ regionid :\$ accountid :<br>routetable /\$ routetable id                                       |
| vpc:DescribeRouteTables    | acs : vpc :\$ regionid :\$ accountid :<br>routetable /*                                                      |
|                            | " vpc : VRouter ":" acs : vpc \$ regionid :\$<br>accountid : vrouter /\$ vrouterid "                         |
| CreateHaVip                | acs : vpc :\$ regionid :\$ accountid : havip<br>/*                                                           |
|                            | acs : vpc :\$ regionid :\$ accountid :<br>vswitch /\$ vswitchid                                              |
| DeleteHaVip                | acs : vpc :\$ regionid :\$ accountid : havip<br>/\$ havipid                                                  |
| AssociateHaVip             | acs : vpc :\$ regionid :\$ accountid : havip<br>/\$ havipid                                                  |
|                            | acs : slb :% s :% s : certificat e /%                                                                        |

| API                        | ARN format                                                                                                                                                            |
|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                            | <pre>acs : ecs :\$ regionid :\$ accountid : instance /\$ instanceid</pre>                                                                                             |
| UnassociateHaVip           | <pre>acs : vpc :\$ regionid :\$ accountid : havip /\$ havipid</pre>                                                                                                   |
|                            | <pre>acs : ecs :\$ regionid :\$ accountid : instance /\$ instanceid</pre>                                                                                             |
| DescribeHaVips             | <pre>acs : vpc :\$ regionid :\$ accountid : havip /*</pre>                                                                                                            |
| vpc:AllocateEipAddress     | <pre>acs : vpc :\$ regionid :\$ accountid : eip /*</pre>                                                                                                              |
| AssociateEipAddress        | <pre>acs : vpc :\$ regionid :\$ accountid : eip /*</pre>                                                                                                              |
|                            | <b>Bind an ECS instance</b><br><pre>acs : vpc :\$ regionid :\$ accountid : eip /\$ allocation id acs : ecs :\$ regionid :\$ accountid : instance /\$ instanceid</pre> |
|                            | <b>Bind an HAVIP</b><br><pre>acs : vpc :\$ regionid :\$ accountid : eip /\$ allocation id acs : vpc :\$ regionid :\$ accountid : havip /\$ havipid</pre>              |
|                            |                                                                                                                                                                       |
| vpc:DescribeEipAddresses   | <pre>acs : vpc :\$ regionid :\$ accountid : eip /*</pre>                                                                                                              |
| vpc:UnassociateEipAddress  | <b>Bind an ECS instance</b><br><pre>acs : vpc :\$ regionid :\$ accountid : eip /\$ allocation id acs : ecs :\$ regionid :\$ accountid : instance /\$ instanceid</pre> |
|                            | <b>Bind an HAVIP</b><br><pre>acs : vpc :\$ regionid :\$ accountid : eip /\$ allocation id acs : vpc :\$ regionid :\$ accountid : havip /\$ havipid</pre>              |
| vpc:ReleaseEipAddress      | <pre>acs : vpc :\$ regionid :\$ accountid : eip /\$ allocation id</pre>                                                                                               |
| vpc:DescribeEipMonitorData | <pre>acs : vpc :\$ regionid :\$ accountid : eip /\$ allocation id</pre>                                                                                               |

| API                                 | ARN format                                                                          |
|-------------------------------------|-------------------------------------------------------------------------------------|
|                                     | acs : ecs :\$ regionid :\$ accountid :<br>instance /\$ instanceid                   |
| CreateNatGateway                    | acs : vpc :\$ regionid :\$ accountid :<br>natgateway /*                             |
| vpc:DescribeNatGateways             | acs : vpc :\$ regionid :\$ accountid :<br>natgateway /\$ natgateway id              |
|                                     | acs : vpc :\$ regionid :\$ accountid :<br>natgateway /*                             |
| ModifyNatGatewaySpec                | acs : vpc :\$ regionid :\$ accountid :<br>natgateway /\$ natgateway id              |
| vpc:ModifyNatGatewayAttribute       | acs : vpc :\$ regionid :\$ accountid :<br>natgateway /\$ natgateway id              |
|                                     | acs : ecs :\$ regionid :\$ accountid :<br>instance /\$ instanceid                   |
| vpc>DeleteNatGateway                | acs : vpc :\$ regionid :\$ accountid :<br>natgateway /\$ natgateway id              |
|                                     | acs : ecs :\$ regionid :\$ accountid :<br>instance /\$ instanceid                   |
| vpc>CreateBandwidthPackage          | acs : vpc :\$ regionid :\$ accountid :<br>bandwidthp ackage /*                      |
| vpc:DescribeBandwidthPackages       | acs : vpc :\$ regionid :\$ accountid :<br>bandwidthp ackage /\$ bandwidthp ackageid |
|                                     | acs : vpc :\$ regionid :\$ accountid :<br>bandwidthp ackage /*                      |
| vpc:ModifyBandwidthPackageSpec      | acs : vpc :\$ regionid :\$ accountid :<br>bandwidthp ackage /\$ bandwidthp ackageid |
| vpc:ModifyBandwidthPackageAttribute | acs : vpc :\$ regionid :\$ accountid :<br>bandwidthp ackage /\$ bandwidthp ackageid |
| vpc:AddBandwidthPackageIds          | acs : vpc :\$ regionid :\$ accountid :<br>bandwidthp ackage /\$ bandwidthp ackageid |
| vpc:RemoveBandwidthPackageIds       | acs : vpc :\$ regionid :\$ accountid :<br>bandwidthp ackage /\$ bandwidthp ackageid |

| API                                            | ARN format                                                                          |
|------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>vpc:DeleteBandwidthPackage</b>              | acs : vpc :\$ regionid :\$ accountid :<br>bandwidthp ackage /\$ bandwidthp ackageid |
| <b>vpc:CreateForwardEntry</b>                  | acs : vpc :\$ regionid :\$ accountid :<br>forwardtab le /\$ forwardtab leid         |
| <b>vpc:DeleteForwardEntry</b>                  | acs : vpc :\$ regionid :\$ accountid :<br>forwardtab le /\$ forwardtab leid         |
| <b>vpc:ModifyForwardEntry</b>                  | acs : vpc :\$ regionid :\$ accountid :<br>forwardtab le /\$ forwardtab leid         |
| <b>vpc:DescribeForwardTable<br/>Entries</b>    | acs : vpc :\$ regionid :\$ accountid :<br>forwardtab le /\$ forwardtab leid         |
| <b>vpc:CreateSnatEntry</b>                     | acs : vpc :\$ regionid :\$ accountid :<br>snattable /*                              |
| <b>vpc:ModifySnatEntry</b>                     | acs : vpc :\$ regionid :\$ accountid :<br>snattable /\$ snattablei d                |
| <b>vpc:DescribeSnatTableEnt<br/>ries</b>       | acs : vpc :\$ regionid :\$ accountid :<br>snattable /\$ snattablei d                |
| <b>vpc:DeleteSnatEntry</b>                     | acs : vpc :\$ regionid :\$ accountid :<br>snattable /\$ snattablei d                |
| <b>vpc:CreateCustomerGateway</b>               | acs : vpc :\$ regionid :\$ accountid :<br>customerga teway /*                       |
| <b>vpc:DeleteCustomerGateway</b>               | acs : vpc :\$ regionid :\$ accountid :<br>customerga teway /\$ customerga tewayid   |
| <b>vpc:DescribeCustomerGate<br/>way</b>        | acs : vpc :\$ regionid :\$ accountid :<br>customerga teway /\$ customerga tewayid   |
| <b>vpc:DescribeCustomerGate<br/>ways</b>       | acs : vpc :\$ regionid :\$ accountid :<br>customerga teway /*                       |
| <b>vpc:ModifyCustomerGatewa<br/>yAttribute</b> | acs : vpc :\$ regionid :\$ accountid :<br>customerga teway /\$ customerga tewayid   |
| <b>vpc:CreateVpnConnection</b>                 | acs : vpc :\$ regionid :\$ accountid :<br>vpnconnect ion /*                         |
| <b>vpc:DeleteVpnConnection</b>                 | acs : vpc :\$ regionid :\$ accountid :<br>vpnconnect ion /\$ vpnconnect ionid       |

| API                                              | ARN format                                                                                                        |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>vpc:DescribeVpnConnection</b>                 | acs : vpc : \$ regionid : \$ accountid :<br>vpnconnect ion / \$ vpnconnect ionid                                  |
| <b>vpc:DescribeVpnConnections</b>                | acs : vpc : \$ regionid : \$ accountid :<br>vpnconnect ion / *                                                    |
| <b>vpc:ModifyVpnConnectionAttribute</b>          | acs : vpc : \$ regionid : \$ accountid :<br>vpnconnect ion / \$ vpnconnect ionid                                  |
| <b>vpc:Downloadvpnconnectionconfig</b>           | acs : vpc : \$ regionid : \$ accountid :<br>vpnconnect ion / \$ vpnconnect ionid                                  |
| <b>vpc&gt;DeleteVpnGateway</b>                   | acs : vpc : \$ regionid : \$ accountid :<br>vpngateway / \$ vpngateway id                                         |
| <b>vpc:DescribeVpnGateway</b>                    | acs : vpc : \$ regionid : \$ accountid :<br>vpngateway / \$ vpngateway id                                         |
| <b>vpc:DescribeVpnGateways</b>                   | acs : vpc : \$ regionid : \$ accountid :<br>vpngateway / *                                                        |
| <b>vpc:ModifyVpnGatewayAttribute</b>             | acs : vpc : \$ regionid : \$ accountid :<br>vpngateway / \$ vpngateway id                                         |
| <b>vpc&gt;CreateGlobalAccelerationInstance</b>   | acs : vpc : \$ regionid : \$ accountid :<br>globalacce lerationin stance / *                                      |
| <b>vpc:AssociateGlobalAccelerationInstance</b>   | acs : vpc : \$ regionid : \$ accountid :<br>: globalacce lerationin stance / \$<br>globalacce lerationin stanceid |
|                                                  | acs : ecs : \$ regionid : \$ accountid :<br>instance / \$ instanceid                                              |
| <b>vpc:UnassociateGlobalAccelerationInstance</b> | acs : ecs : \$ regionid : \$ accountid :<br>instance / \$ instanceid                                              |
| <b>ModifyGlobalAccerlationInstanceSpec</b>       | acs : ecs : \$ regionid : \$ accountid :<br>instance / \$ instanceid                                              |
| <b>ModifyGlobalAccerlationInstanceAttributes</b> | acs : ecs : \$ regionid : \$ accountid :<br>instance / \$ instanceid                                              |
| <b>vpc&gt;DeleteGlobalAccelerationInstance</b>   | acs : ecs : \$ regionid : \$ accountid :<br>instance / \$ instanceid                                              |
| <b>vpc:DescribeGlobalAccelerationInstances</b>   | acs : vpc : \$ regionid : \$ accountid :<br>globalacce lerationin stance / *                                      |

| API                                                         | ARN format                                                                                                                                                                     |
|-------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>AddGlobalAccelerationInstanceIp</b>                      | <pre>acs : vpc :\$ regionid :\$ accountid : globalacce lerationin stance /\$ globalacce lerationin stanceid acs : vpc :\$ regionid :\$ accountid : eip /\$ allocation id</pre> |
| <b>RemoveGlobalAccelerationInstanceIp</b>                   | <pre>acs : vpc :\$ regionid :\$ accountid : globalacce lerationin stance /\$ globalacce lerationin stanceid acs : vpc :\$ regionid :\$ accountid : eip /\$ allocation id</pre> |
| <b>vpc:DescribeServerRelatedGlobalAccelerationInstances</b> | <pre>acs : vpc :\$ regionid :\$ accountid : globalacce lerationin stance /*</pre>                                                                                              |
|                                                             | <pre>acs : ecs :\$ regionid :\$ accountid : instance /\$ instanceid</pre>                                                                                                      |

## 5 Error codes

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You can view all error codes in the [VP API error center](#) to troubleshoot.

## 6 VSwitch

### 6.1 DescribeVSwitches

Queries one or more VSwitches.

This API supports query pagination and each page contains 10 entries by default.

This API only verifies the validity of parameters and does not verify the dependency relationship between the parameters. The returned result is the intersection of all conditions.

#### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

#### Request parameters

| Parameter    | Type    | Required? | Example value     | Description                                                                                                                                                                                                                                      |
|--------------|---------|-----------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action       | String  | Yes       | DescribeVSwitches | The name of this action. Value: DescribeVSwitches                                                                                                                                                                                                |
| RegionId     | String  | Yes       | cn-hangzhou       | The region of the VPC to which the VSwitch belongs.<br>To query the region ID, call DescribeRegions.                                                                                                                                             |
| Isdefault    | Boolean | No        | true              | Indicates whether to query the default VSwitch in the specified region. <ul style="list-style-type: none"><li>· true (default value): Query all VSwitches in the specified region.</li><li>· false : Do not query the default VSwitch.</li></ul> |
| OwnerAccount | String  | No        |                   | The owner account.                                                                                                                                                                                                                               |
| PageNumber   | Integer | No        | 10                | The number of pages to return. Default value: 1 .                                                                                                                                                                                                |

| Parameter       | Type    | Required? | Example value             | Description                                                                                  |
|-----------------|---------|-----------|---------------------------|----------------------------------------------------------------------------------------------|
| PageSize        | Integer | No        | 1                         | The number of rows per page. Maximum value: 50 . Default value: 10 .                         |
| ResourceGroupId | String  | No        | 1234567                   | The ID of the resource group.                                                                |
| RouteTableId    | String  | No        | vtb-bp145q7glnuzdvzu21pom | The ID of the route table.                                                                   |
| VSwitchId       | String  | No        | vsw-23dsf3xxxxxx          | The ID of the VSwitch.                                                                       |
| VSwitchName     | String  | No        | VSwitch-1                 | The name of the VSwitch.                                                                     |
| VpcId           | String  | No        | vpc-25eq58plxxxxxxxx      | The ID of the VPC.                                                                           |
| ZoneId          | String  | No        | cn-hangzhou-d             | The ID of the zone to which the VSwitch belongs. To query the region ID, call DescribeZones. |

## Response parameters

| Parameter                            | Type   | Example value         | Description                                          |
|--------------------------------------|--------|-----------------------|------------------------------------------------------|
| VSwitches                            | N/A    | N/A                   | A list of VSwitches.                                 |
| <sup>⌞</sup> AvailableIpAddressCount | Long   | 1                     | The number of available IP addresses in the VSwitch. |
| <sup>⌞</sup> CidrBlock               | String | 172.16.0.0/24         | The CIDR block of the VSwitch.                       |
| <sup>⌞</sup> CreationTime            | String | 2018-01-18T12:43:57Z  | The time when the VSwitch was created.               |
| <sup>⌞</sup> Description             | String | This is my vswitch.   | The description of the VSwitch.                      |
| <sup>⌞</sup> Ipv6CidrBlock           | String | 2408:4004:0:2900::/64 | The IPv6 CIDR block of the VSwitch.                  |

| Parameter                    | Type    | Example value                        | Description                                                                                                                                        |
|------------------------------|---------|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>IsDefault</code>       | Boolean | true                                 | Whether the VSwitch is the default VSwitch in the zone.                                                                                            |
| <code>ResourceGroupId</code> | String  | 123456                               | The ID of the resource group to which the VSwitch belongs.                                                                                         |
| <code>RouteTable</code>      | N/A     | N/A                                  | The information of the route table.                                                                                                                |
| <code>RouteTableId</code>    | String  | vrt-123456                           | The ID of the route table associated with the VSwitch.                                                                                             |
| <code>RouteTableType</code>  | String  | System                               | The type of the route table: <ul style="list-style-type: none"> <li>System: system route table</li> <li>Custom: custom route table</li> </ul>      |
| <code>Status</code>          | String  | Available                            | The status of the VSwitch. Valid values: <ul style="list-style-type: none"> <li>Pending: being configured</li> <li>Available: available</li> </ul> |
| <code>VSwitchId</code>       | String  | vsw-xxxxxxxxxx<br>xxxxxx             | The ID of the VSwitch.                                                                                                                             |
| <code>VSwitchName</code>     | String  | VSwitch-1                            | The name of the VSwitch.                                                                                                                           |
| <code>VpcId</code>           | String  | vpc-234asxxxxx<br>xxxxxxx            | The ID of the VPC to which the VSwitch belongs.                                                                                                    |
| <code>ZoneId</code>          | String  | cn-hangzhou-d                        | The ID of the zone to which the VSwitch belongs.                                                                                                   |
| TotalCount                   | Integer | 10                                   | The number of queried entries.                                                                                                                     |
| PageNumber                   | Integer | 10                                   | The current page number.                                                                                                                           |
| PageSize                     | Integer | 10                                   | The number of rows per page.                                                                                                                       |
| RequestId                    | String  | 9A572171-4E27-40D1-BD36-D26XXXXXXXXX | The ID of the request.                                                                                                                             |

## Examples

### Request example

```
http ( s )://[ Endpoint ]/?< CommonParameters >
```

## Response example

### • XML format

```
< DescribeVSwitchesResponse >
  < RequestId > 9A572171 - 4E27 - 40D1 - BD36 - D26C9E71E2 9E </
  RequestId >
  < VSwitches >
    < VSwitch >
      < VSwitchId > vsw - 25b7pv15t </ VSwitchId >
      < Status > Available </ Status >
      < CidrBlock > 172 . 16 . 1 . 0 / 24 </ CidrBlock >
      < ZoneId > cn - beijing - a </ ZoneId >
      < AvailableIpAddressCount > 246 </ AvailableIpAddressCount >
      < VpcId > vpc - 257gq642n </ VpcId >
      < Description > n />
      < VSwitchName > e />
      < CreationTime > 2014 - 10 - 29T15 : 21 : 02Z </
    </ VSwitch >
  </ VSwitches >
</ DescribeVSwitchesResponse >
```

### • JSON format

```
{
  "PageNumber": 1,
  "VSwitches": {
    "VSwitch": [
      {
        "CreationTime": "2014 - 10 - 29T15 : 21 : 02Z",
        "Status": "Available",
        "CidrBlock": "172 . 16 . 1 . 0 / 24",
        "Description": "",
        "AvailableIpAddressCount": 246,
        "VSwitchName": "e",
        "ZoneId": "cn - beijing - a",
        "VSwitchId": "vsw - 25b7pv15t",
        "VpcId": "vpc - 257gq642n"
      }
    ]
  },
  "TotalCount": 1,
  "PageSize": 10,
  "RequestId": "9A572171 - 4E27 - 40D1 - BD36 - D26C9E71E2 9E"
}
```

## Error codes

| HTTP status code | Error code                | Error message      | Description                           |
|------------------|---------------------------|--------------------|---------------------------------------|
| 404              | InvalidVSwitchId.NotFound | VSwitch not exist. | The specified VSwitch does not exist. |

| HTTP status code | Error code                | Error message                | Description                       |
|------------------|---------------------------|------------------------------|-----------------------------------|
| 400              | Forbidden.<br>VpcNotFound | Specified VPC can not found. | The specified VPC does not exist. |

[See common error codes](#)

## 6.2 ModifyVSwitchAttribute

Modifies the name and description of a VSwitch.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter     | Type    | Required? | Example value          | Description                                                                                                                                                                              |
|---------------|---------|-----------|------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action        | String  | Yes       | ModifyVSwitchAttribute | The name of this action. Value: ModifyVSwitchAttribute                                                                                                                                   |
| RegionId      | String  | Yes       | cn-hangzhou            | The ID of the region to which the VSwitch belongs.                                                                                                                                       |
| VSwitchId     | String  | Yes       | vsw-25naue4gz          | The ID of the VSwitch.                                                                                                                                                                   |
| Description   | String  | No        | This is my vswitch.    | The description of the VSwitch. The description must be 2 to 256 characters in length. It must start with a letter and cannot start with <code>http://</code> or <code>https://</code> . |
| Ipv6CidrBlock | Integer | No        | 0                      | The IPv6 CIDR block of the VSwitch. You can customize the last eight bits of an IPv6 CIDR block. Value range: 0 to 255<br>By default, the mask of an IPv6 CIDR block is 64-bit long.     |

| Parameter   | Type   | Required? | Example value | Description                                                                                                                                                                                                                                                           |
|-------------|--------|-----------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VSwitchName | String | No        | VSwitch-1     | The name of the VSwitch.<br>The name must be 2 to 128 characters in length. It can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter and cannot start with <code>http ://</code> or <code>https ://</code> . |

### Response parameters

| Parameter | Type   | Example value                       | Description            |
|-----------|--------|-------------------------------------|------------------------|
| RequestId | String | C0FD0EED-F90D-4479-803D-DD623XXXXXX | The ID of the request. |

### Examples

#### Request example

```
http ( s ) : // [ Endpoint ] / ? VSwitchId = vsw - 25naue4gz
&< CommonParameters >
```

#### Response example

- XML format

```
< ModifyVSwitchAttributeResponse >
  < RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 </
  RequestId >
</ ModifyVSwitchAttributeResponse >
```

- JSON format

```
{
  "RequestId ":" 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 "
```

```
}
```

### Error codes

| HTTP status code | Error code                          | Error message                                      | Description                                                 |
|------------------|-------------------------------------|----------------------------------------------------|-------------------------------------------------------------|
| 404              | InvalidVSwitchId.NotFound           | The specified virtual switch does not exist.       | The specified VSwitch does not exist.                       |
| 400              | InvalidVSwitchName.Malformed        | Specified virtual switch name is not valid.        | The format of the name of the specified VSwitch is invalid. |
| 400              | InvalidVSwitchDescription.Malformed | Specified virtual switch description is not valid. | The description of the VSwitch is invalid.                  |
| 404              | InvalidVSwitchId.NotFound           | The specified virtual switch does not exist.       | The specified VSwitch does not exist.                       |

[See common error codes](#)

## 6.3 DescribeVSwitchAttributes

Queries the configurations of a VSwitch.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter | Type   | Required? | Example value             | Description                                                |
|-----------|--------|-----------|---------------------------|------------------------------------------------------------|
| Action    | String | Yes       | DescribeVSwitchAttributes | The name of this action. Value: DescribeVSwitchAttributes  |
| RegionId  | String | Yes       | cn-hangzhou               | The region ID of the VPC to which the route table belongs. |
| VSwitchId | String | Yes       | vsw-25naue4gz             | The ID of the VSwitch.                                     |

## Response parameters

| Parameter               | Type    | Example value                        | Description                                                                                                                                                     |
|-------------------------|---------|--------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AvailableIpAddressCount | Long    | 12                                   | The number of available IP addresses.                                                                                                                           |
| CidrBlock               | String  | 192.168.0.1/24                       | The private CIDR block of the VSwitch.                                                                                                                          |
| CloudResources          | N/A     | N/A                                  | Cloud resources under the VSwitch.                                                                                                                              |
| └ ResourceCount         | Integer | 1                                    | The number of cloud resources under the VSwitch.                                                                                                                |
| └ ResourceType          | String  | nat                                  | The type of the cloud resource.                                                                                                                                 |
| CreationTime            | String  | 2017-08-22T10:40:25Z                 | The time when the VSwitch was created.                                                                                                                          |
| Description             | String  | This is my VSwitch.                  | The description of the VSwitch.                                                                                                                                 |
| Ipv6CidrBlock           | String  | 2408:4004:0:2900::/64                | The IPv6 CIDR block of the VSwitch.                                                                                                                             |
| IsDefault               | Boolean | false                                | Whether the VSwitch is the default VSwitch.                                                                                                                     |
| RequestId               | String  | 7B48B4B9-1EAD-469F-B488-594DAB4B6A1A | The ID of the request.                                                                                                                                          |
| ResourceGroupId         | String  | 123456                               | The ID of the resource group.                                                                                                                                   |
| RouteTable              | N/A     | N/A                                  | The route table information of the VSwitch.                                                                                                                     |
| └ RouteTableId          | String  | vtb-bp145q7glnuzdvzu21pom            | The ID of the route table associated with the VSwitch.                                                                                                          |
| └ RouteTableType        | String  | System                               | The type of the route table. Valid values: <ul style="list-style-type: none"> <li>System: system route table.</li> <li>Custom: customer route table.</li> </ul> |

| Parameter   | Type   | Example value | Description                                                                                                                                        |
|-------------|--------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Status      | String | Pending       | The status of the VSwitch. Valid values: <ul style="list-style-type: none"> <li>Pending: being configured</li> <li>Available: available</li> </ul> |
| VSwitchId   | String | vsw-25b7pv15t | The ID of the VSwitch.                                                                                                                             |
| VSwitchName | String | test          | The name of the VSwitch.                                                                                                                           |
| VpcId       | String | vpc-257gq642n | The ID of the VPC to which the VSwitch belongs.                                                                                                    |
| ZoneId      | String | cn-beijing-a  | The ID of the zone to which the VSwitch belongs.                                                                                                   |

## Examples

### Request example

```
/? Action = DescribeVSwitchAttributes
& VSwitchId = vsw-25naue4gz
&<CommonParameters>
```

### Response example

### XML format

```
<DescribeVSwitchAttributesResponse>
  <RouteTable>
    <RouteTableId>vtb-hp3ngu1hkd-utfakqz76-p</RouteTableId>
    <RouteTableType>System</RouteTableType>
  </RouteTable>
  <Description/>
  <IsDefault>>false</IsDefault>
  <AvailableIpAddressCount>251</AvailableIpAddressCount>
  <ResourceGroupId>rg-acfmy45w7w-2cdxa</ResourceGroupId>
  <ZoneId>cn-huhehaote-a</ZoneId>
  <VSwitchId>vsw-hp3lyltb1d-osj540yyxj-v</VSwitchId>
  <VpcId>vpc-hp34hflqqj-jh3a3q7lbt-r</VpcId>
  <CreationTime>2019-01-07T04:54:14Z</CreationTime>
  <Status>Available</Status>
  <CidrBlock>192.168.0.0/24</CidrBlock>
  <RequestId>A31F062D-81F0-48BC-9771-915D6622D26A</RequestId>
  <VSwitchName>doc1</VSwitchName>
  <Ipv6CidrBlock>2408:4004:0:2900::/64</Ipv6CidrBlock>
  <CloudResources/>
```

```
</ DescribeVS witchAttri butesRespo nse >
```

## JSON format

```
{
  "RouteTable ":{
    "RouteTable Id ":" vtb - hp3ngu1hkd utfakqnz76 p ",
    "RouteTable Type ":" System "
  },
  "Descriptio n ":"",
  "IsDefault ": false ,
  "AvailableI pAddressCo unt ": 251 ,
  "ResourceGr oupId ":" rg - acfmy45w7w 2cdxa ",
  "ZoneId ":" cn - huhehaote - a ",
  "VSwitchId ":" vsw - hp3lyltbld osj540yyxj v ",
  "VpcId ":" vpc - hp34hflqqs jh3a3q7lbt r ",
  "CreationTi me ":" 2019 - 01 - 07T04 : 54 : 14Z ",
  "Status ":" Available ",
  "CidrBlock ":" 192 . 168 . 0 . 0 / 24 ",
  "RequestId ":" A31F062D - 81F0 - 48BC - 9771 - 915D6622D2 6A ",
  "Ipv6CidrBl ock ":" 2408 : 4004 : 0 : 2900 ::/ 64 ",
  "VSwitchNam e ":" doc1 ",
  "CloudResou rces ":{
    "CloudResou rceSetType ":[]
  }
}
```

## Error codes

[See common error codes](#)

## 6.4 CreateVSwitch

Creates a VSwitch in a VPC.

Note the following before you call this action:

- Up to 24 VSwitches can be created in a VPC.
- The first and last three IP addresses of the VSwitch are reserved by the system. For example, if the CIDR block of a VSwitch is 192.168.1.0/24, IP addresses 192.168.1.0, 192.168.1.253, 192.168.1.254, and 192.168.1.255 are reserved.
- The number of cloud product instances under the VSwitch cannot exceed the remaining capacity of the VPC (subtract the current number of cloud product instances from 15,000).
- A cloud product instance can only belong to one VSwitch.
- VSwitches do not support broadcasting or multicasting.

After a VSwitch is created, you cannot modify its CIDR block.

## Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter | Type   | Required? | Example value      | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------|--------|-----------|--------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action    | String | Yes       | CreateVSwitch      | The name of this action. Value: CreateVSwitch                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| CidrBlock | String | Yes       | 172.16.0.0/24      | The CIDR block of VSwitch. The IP address range must meet the following requirements: <ul style="list-style-type: none"> <li>• The length of the subnet mask for the VSwitch must be in the range of /16 to /29.</li> <li>• The CIDR block of the VSwitch must belong to the CIDR block of the VPC.</li> <li>• The CIDR block of the VSwitch cannot be the same as any destination CIDR block in route entries of the VPC, but can be the subnet of the destination CIDR block.</li> <li>• If the network segment of the switch is the same as the network segment of the same VPC, there can be only one switch for the VPC.</li> </ul> |
| VpcId     | String | Yes       | vpc-257gq6nxxxxxxx | The ID of the VPC to which the VSwitch belongs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| ZoneId    | String | Yes       | cn-hangzhou-b      | The ID of the zone to which the switch belongs.<br>To query the region ID, call DescribeZones.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| RegionId  | String | Yes       | cn-hangzhou        | The ID of the region to which the VSwitch belongs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

| Parameter     | Type    | Required? | Example value       | Description                                                                                                                                                                                |
|---------------|---------|-----------|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ipv6CidrBlock | Integer | No        | 0                   | The IPv6 CIDR block of the VSwitch. You can customize the last eight bits of an IPv6 CIDR block. Value range: 0 to 255.<br>By default, the length of the IPv6 CIDR mask is /64.            |
| Description   | String  | No        | This is my vswitch. | The description of the VSwitch. The description must be 2 to 256 characters in length and must start with a letter. It cannot start with <code>http ://</code> or <code>https ://</code> . |
| VSwitchName   | String  | No        | VSwitch-1           | The name of the VSwitch. The name must be 1 to 128 characters in length and must start with a letter. It cannot start with <code>http ://</code> or <code>https ://</code> .               |
| ClientToken   | String  | No        | dhueeuxxxx<br>xxdde | A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length.           |
| OwnerAccount  | String  | No        | N/A                 | The owner account.                                                                                                                                                                         |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 861E6630-AEC0-4B2D-B214-6CB5E44B7F04 | The ID of the request. |
| VSwitchId | String | vsw-25naue4gz                        | The ID of the switch.  |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=CreateVSwitch
&CidrBlock=172.16.0.0/24
&VpcId=vpc-257gq6nxxx-xxxx
&ZoneId=cn-hangzhou-b
&<CommonParameters>
```

### Response example

- XML format

```
<CreateVSwitchResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCA-C0</
  RequestId>
  <VSwitchId>vsw-25naue4gz</VSwitchId>
</CreateVSwitchResponse>
```

- JSON format

```
{
  "RequestId":"0ED8D006-F706-4D23-88ED-E11ED28DCA-C0",
  "VSwitchId":"vsw-25naue4gz"
}
```

### Error codes

| HTTP status code | Error code                   | Error message                                                   | Description                                                              |
|------------------|------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------------------|
| 404              | InvalidZoneId.NotFound       | Specified zone does not exist.                                  | The ID of the zone is incorrect.                                         |
| 404              | InvalidVpcId.NotFound        | Specified VPC does not exist.                                   | The specified VPC does not exist.                                        |
| 400              | InvalidVSwitchName.Malformed | Specified virtual switch name is not valid.                     | The format of the name of the specified VSwitch is invalid.              |
| 400              | ResourceNotAvailable         | Resource you requested is not available in this region or zone. | The resource that you requested is not available in this region or zone. |
| 400              | InvalidParameter             | Specified CIDR block is not valid in VPC.                       | The specified CIDR block does not belong to the CIDR block of the VPC.   |

| HTTP status code | Error code                           | Error message                                         | Description                                                                                                                                                                   |
|------------------|--------------------------------------|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 400              | InvalidCidrBlock.<br>Overlapped      | Specified CIDR block overlapped with other subnets.   | The specified CIDR block overlaps the CIDR block of another VSwitch or the destination CIDK block of an existing customer route. Select a CIDR block that is not used.        |
| 400              | InvalidCidrBlock.<br>Overlapped      | Specified CIDR block overlapped with other entry.     | The specified CIDR block overlaps with the CIDR block of another VSwitch , or the destination CIDK block of an existing customer route. Select a CIDR block that is not used. |
| 400              | QuotaExceeded.<br>VSwitch            | Virtual switch quota exceeded.                        | The maximum number of VSwitches was exceeded.                                                                                                                                 |
| 400              | IncorrectR<br>outeEntryStatus        | Some route entry status blocked this operation.       | The route table includes entries in the Pending or Modifying status.                                                                                                          |
| 400              | IncorrectV<br>SwitchStatus           | Some virtual switch is modifying within the same VPC. | The VPC has multiple VSwitches that are in the Modifying status. Please try again later.                                                                                      |
| 400              | InvalidCir<br>drBlock.<br>MaskLength | Specified CIDR block is not valid .                   | The form of the CIDR block is invalid.                                                                                                                                        |
| 400              | IncorrectV<br>pcStatus               | Current VPC status does not support this operation .  | The current status of VPC does not support the action.                                                                                                                        |
| 400              | MissingPar<br>ameter                 | Miss mandatory parameter.                             | The required parameters are missing.                                                                                                                                          |
| 400              | IncorrectV<br>SwitchStatus           | VSwitch Creation simultaneously is not supported.     | You cannot create VSwitches because the VPC includes VSwitches in the Creating status.                                                                                        |

| HTTP status code | Error code                | Error message                | Description                       |
|------------------|---------------------------|------------------------------|-----------------------------------|
| 400              | Forbidden.<br>VpcNotFound | Specified VPC can not found. | The specified VPC does not exist. |

[See common error codes](#)

## 6.5 DeleteVSwitch

Deletes a VSwitch.

Note the following before you call this action:

- You first must release or remove all resources under the VPC, including VSwitches, cloud product instances, router interfaces, and HAVIPs.
- Only VSwitches in the available status can be deleted.
- A VSwitch cannot be deleted when the VPC to which it belongs is creating or deleting a VSwitch or route entry.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter | Type   | Required? | Example value    | Description                                   |
|-----------|--------|-----------|------------------|-----------------------------------------------|
| Action    | String | Yes       | DeleteVSwitch    | The name of this action. Value: DeleteVSwitch |
| VSwitchId | String | Yes       | vsw-asdfjlnaue4g | The ID of the VSwitch to delete.              |

## Response parameters

| Parameter | Type   | Example value                            | Description            |
|-----------|--------|------------------------------------------|------------------------|
| RequestId | String | AF083E3D-7E29-4B77-A937-1F129802D5XXXXXX | The ID of the request. |

## Examples

### Request example

```
http ( s ):// vpc . aliyuncs . com /? Action = DeleteVSwi tch
& VSwitchId = vsw - asdfjlnaue 4g
&< CommonPara meters >
```

### Response example

- XML format

```
< DeleteVSwi tchRespons e >
  < RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 </
  RequestId >
</ DeleteVSwi tchRespons e >
```

- JSON format

```
{
  " RequestId ":" 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 "
}
```

## Error codes

| HTTP status code | Error code             | Error message                                                      | Description                                                                     |
|------------------|------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------|
| 400              | IncorrectVSwitchStatus | The current virtual switch status does not support this operation. | The specified VSwitch failed to be deleted because it was in the Pending state. |
| 400              | Dependency Violation   | Some route entry status blocked this operation.                    | The route table contains entries in the Pending or Modifying status.            |

| HTTP status code | Error code                | Error message                                                          | Description                                                                          |
|------------------|---------------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| 400              | IncorrectRouteEntryStatus | Some route entry status blocked this operation.                        | The route table contains entries in the Pending or Modifying state.                  |
| 400              | DependencyViolation.HaVip | VSwitch cannot be deleted when there are some HaVip dependent with it. | You cannot delete this VSwitch because a HAVIP is bound to it.                       |
| 400              | MissingParameter          | Miss mandatory parameter.                                              | The required parameters are missing.                                                 |
| 404              | InvalidVSwitchId.NotFound | VSwitch not exist.                                                     | The specified VSwitch does not exist.                                                |
| 404              | IncorrectStatus           | Vswitch status not stable.                                             | The VSwitch is currently in the Pending or Modifying status. Please try again later. |

[See common error codes](#)

## 7 VRouter

### 7.1 DescribeVRouters

Queries VRouters in a region.

#### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

#### Request parameters

| Parameter  | Type    | Required? | Example value            | Description                                                                                     |
|------------|---------|-----------|--------------------------|-------------------------------------------------------------------------------------------------|
| Action     | String  | Yes       | DescribeVRouters         | The name of this action. Value: DescribeVRouters                                                |
| RegionId   | String  | Yes       | cn-hangzhou              | The ID of the region to which the VPC belongs.<br>To query the region ID, call DescribeRegions. |
| VRouterId  | String  | No        | vrt-bp1lhl0taikrteen80ox | The ID of the VRouter.                                                                          |
| PageNumber | Integer | No        | 10                       | The number of pages to return. Default value: 1.                                                |
| PageSize   | Integer | No        | 10                       | The number of rows per page.<br>Maximum value: 50. Default value: 10.                           |

#### Response parameters

| Parameter                 | Type   | Example value        | Description                            |
|---------------------------|--------|----------------------|----------------------------------------|
| VRouters                  | N/A    |                      | A list of VRouters.                    |
| <sup>L</sup> CreationTime | String | 2018-03-22T07:46:20Z | The time when the VRouter was created. |

| Parameter                   | Type    | Example value                                       | Description                                     |
|-----------------------------|---------|-----------------------------------------------------|-------------------------------------------------|
| <code>↳Description</code>   | String  | This is my VRouter.                                 | The description of the VRouter.                 |
| <code>↳RegionId</code>      | String  | us-west-1                                           | The region where the VPC belongs.               |
| <code>↳RouteTableIds</code> | N/A     | { "RouteTableId": [ "vtb-rj9ybe3y0u41mmjspmop0" ] } | The ID of the route table of the VRouter.       |
| <code>↳VRouterId</code>     | String  | vrt-rj98khsezfqpjrxmvl7cy                           | The ID of the VRouter.                          |
| <code>↳VRouterName</code>   | String  | doctest                                             | The name of the VRouter.                        |
| <code>↳VpcId</code>         | String  | vpc-rj905wotv6y030t1zz5vl                           | The ID of the VPC to which the VRouter belongs. |
| TotalCount                  | Integer | 1                                                   | The number of queried entries.                  |
| PageNumber                  | Integer | 1                                                   | The current page number.                        |
| PageSize                    | Integer | 2                                                   | The number of entries per page.                 |
| RequestId                   | String  | 0ED8D006-F706-4D23-88ED-E11ED28DCAC0                | The ID of the request.                          |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?RegionId=cn-hangzhou
&<CommonParameters>
```

### Response example

#### • XML format

```
<DescribeVRoutersResponse>
  <PageNumber>1</PageNumber>
  <TotalCount>2</TotalCount>
  <VRouters>
    <VRouter>
      <VRouterName>
      <RouteTableIds>
        <RouteTableId>vtb-bp1krxxzp0c29fmontba1</RouteTableId>
      </RouteTableIds>
    </VRouter>
  </VRouters>
</DescribeVRoutersResponse>
```

```

    < CreationTime > 2018 - 12 - 06T06 : 11 : 55Z </ CreationTime >
    < Description > />
    < RegionId > cn - hangzhou </ RegionId >
    < VRouterId > vrt - bp1jcg5cmx_jbl9xgc58b_w </ VRouterId >
    < VpcId > vpc - bp1qpo0kug_3a20qqe9h7_v </ VpcId >
  </ VRouter >
  < VRouter >
    < VRouterName > />
    < RouteTableIds >
      < RouteTableId > vtb - bp1blq1oh0_ybfnpm1bh2_0 </
RouteTableId >
    </ RouteTableIds >
    < CreationTime > 2018 - 11 - 08T08 : 54 : 03Z </ CreationTime >
  </ VRouter >
</ VRouters >
< PageSize > 10 </ PageSize >
< RequestId > EE4C2417 - 9437 - 4333 - BDEB - 8493F7AA72_58 </
RequestId >
</ DescribeVRoutersResponse >

```

#### · JSON format

```

{
  "PageNumber": 1,
  "TotalCount": 1,
  "VRouters": {
    "VRouter": [
      {
        "CreationTime": "2018 - 03 - 22T07 : 46 : 20Z",
        "RouteTableIds": {
          "RouteTableId": [
            "vtb - rj9ybe3y0u_41mmjspmop_0"
          ]
        },
        "VRouterName": "",
        "Description": "",
        "RegionId": "us - west - 1",
        "VpcId": "vpc - rj905wotv6_y030t1zz5v_l",
        "VRouterId": "vrt - rj98khsezf_qpjrxmvl7c_y"
      }
    ]
  },
  "PageSize": 10,
  "RequestId": "CB2793A8 - 845F - 444C - 8E93 - 76F1BBDF9C_78"
}

```

#### Error codes

[See common error codes](#)

## 7.2 ModifyVRouterAttribute

Modifies the name and description of a VRouter.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter   | Type   | Required? | Example value            | Description                                                                                                                                                                                                                                                  |
|-------------|--------|-----------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action      | String | Yes       | ModifyVRouterAttribute   | The name of this action. Value: ModifyVRouterAttribute                                                                                                                                                                                                       |
| RegionId    | String | Yes       | cn-hangzhou              | The ID of the region to which the VPC belongs.                                                                                                                                                                                                               |
| VRouterId   | String | Yes       | vrt-bp1lhl0taikrteen80ox | The ID of the VRouter.                                                                                                                                                                                                                                       |
| Description | String | No        | My VRouter               | The description of the VRouter. The description must be 2 to 256 characters in length. It must start with a letter and cannot start with <code>http ://</code> or <code>https ://</code> .                                                                   |
| VRouterName | String | No        | VRouter-1                | The name of the VRouter. The name must be 2 to 128 characters in length. It can contain letters, numbers, periods (.), underscores (_), and hyphens (-). It must start with a letter and cannot start with <code>http ://</code> or <code>https ://</code> . |

## Response parameters

| Parameter | Type   | Example value                         | Description            |
|-----------|--------|---------------------------------------|------------------------|
| RequestId | String | 0ED8D006-F706-4D23-88ED-E11ED28DCA C0 | The ID of the request. |

## Examples

### Request example

```
https :// vpc . aliyuncs . com /? Action = ModifyVRou  terAttribu  
te  
& VRouterId = vrt - bp1lhl0tai  krteen80ox  x  
&< CommonPara  meters >
```

### Response example

- XML format

```
< ModifyVRou  terAttribu  teResponse >  
  < RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA  C0 </  
  RequestId >  
</ ModifyVRou  terAttribu  teResponse >
```

- JSON format

```
{  
  " RequestId ":" 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA  C0 ",  
  " RouteTable  Id ":" vtb - bp145q7gln  uzdvzu21po  m ",  
  " VpcId ":" vpc - bp15zckdt3  7pq72zvw30  k ",  
  " VRouterId ":" vrt - bp1lhl0tai  krteen80ox  x "  
}
```

## Error codes

| HTTP status code | Error code                   | Error message                               | Description                           |
|------------------|------------------------------|---------------------------------------------|---------------------------------------|
| 404              | InvalidVRouterId.NotFound    | Specified virtual router does not exist.    | The specified VRouter does not exist. |
| 400              | InvalidVRouterName.Malformed | Specified virtual router name is not valid. | The VRouter name is invalid.          |

| HTTP status code | Error code                          | Error message                                      | Description                         |
|------------------|-------------------------------------|----------------------------------------------------|-------------------------------------|
| 400              | InvalidVRouterDescription.Malformed | Specified virtual router description is not valid. | The VRouter description is invalid. |
| 400              | MissingParameter                    | Miss mandatory parameter.                          | Required parameters are missing.    |

[See common error codes](#)

## 8 Route table

### 8.1 ModifyRouteTableAttributes

Modifies the name and description of a route table.

#### Debug

By using [OpenAPI Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

#### Request parameters

| Parameter      | Type   | Required? | Example value              | Description                                                                                                                                                                                                                                                                       |
|----------------|--------|-----------|----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action         | String | Yes       | ModifyRouteTableAttributes | The name of this action. Value: ModifyRouteTableAttributes                                                                                                                                                                                                                        |
| RegionId       | String | Yes       | cn-hangzhou                | The region ID of the VPC to which the route table belongs.<br>To query the region ID, call DescribeRegions.                                                                                                                                                                       |
| RouteTableId   | String | Yes       | vtb-bp145q7glnuzdvzu21pom  | The ID of the route table.                                                                                                                                                                                                                                                        |
| Description    | String | No        | This is my route table.    | The description of the route table.<br>The description must be 2 to 256 characters in length. It must start with a letter, but cannot start with <code>http ://</code> or <code>https ://</code> .                                                                                |
| RouteTableName | String | No        | doctest                    | The name of the route table.<br>The name must be 2 to 128 characters in length. It can contain letters, numbers, periods (.), underlines (_), and hyphens (-). It must start with an English letter. The name cannot start with <code>http ://</code> or <code>https ://</code> . |

## Response parameters

| Parameter | Type   | Example value                   | Description            |
|-----------|--------|---------------------------------|------------------------|
| RequestId | String | 62172DD5-6BAC-45DF-8D44-xxxxxxx | The ID of the request. |

## Examples

### Request example

```
http ( s ) : // vpc . aliyuncs . com / ? Action = ModifyRouteTableAttribute
& RegionId = cn - hangzhou
& RouteTableId = vtb - bp145q7gln - uzdvzu21po - m
& < CommonParameters >
```

### Response example

- XML format

```
< ModifyRouteTableAttributeResponse >
  < RequestId > 62172DD5 - 6BAC - 45DF - 8D44 - xxxxxxx </ RequestId >
</ ModifyRouteTableAttributeResponse >
```

- JSON format

```
{
  "RequestId": "62172DD5 - 6BAC - 45DF - 8D44 - xxxxxxx"
}
```

## Error codes

| HTTP status code | Error code | Error message                                             | Description                                      |
|------------------|------------|-----------------------------------------------------------|--------------------------------------------------|
| 403              | Forbidden  | User not authorized to operate on the specified resource. | You are not authorized to operate this resource. |

[See common error codes](#)

## 8.2 DescribeRouteTableList

Query a route table.

Request parameters

| Name         | Type    | Required | Description                                                                                                                                                        |
|--------------|---------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action       | String  | Yes      | The action to perform. Valid value:<br>DescribeRouteTableList                                                                                                      |
| RouterType   | String  | No       | The type of the router to which the route table belongs. Valid value: <ul style="list-style-type: none"><li>VRouter (default): VRouter</li><li>VBR : VBR</li></ul> |
| VpcId        | String  | No       | The ID of the VRouter to which the route table belongs. The value of the RouterType parameter is set to VRouter automatically when this parameter is specified.    |
| RouteTableId | String  | No       | The ID of the route table.                                                                                                                                         |
| PageNumber   | Integer | No       | The number of pages to return. The default value is 1 .                                                                                                            |
| PageSize     | Integer | No       | The number of rows per page. The maximum value is 50 and the default value is 10 .                                                                                 |

Response parameters

| Name           | Type    | Description                                  |
|----------------|---------|----------------------------------------------|
| RequestId      | String  | The ID of the request.                       |
| TotalCount     | String  | The number of queried entries.               |
| PageNumber     | Integer | The current page number.                     |
| PageSize       | String  | The number of rows per page.                 |
| RouteTableList | List    | The detailed information of the route table. |

Table 8-1: RouteTableList

| Name            | Type   | Description                                                                                                                                                  |
|-----------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RouterType      | String | The type of the router to which the route table belongs. Valid value: <ul style="list-style-type: none"> <li>VRouter : VRouter</li> <li>VBR : VBR</li> </ul> |
| RouterId        | String | The ID of the VRouter to which the route table belongs.                                                                                                      |
| RouteTable Id   | String | The ID of the route table.                                                                                                                                   |
| RouteTable Type | String | The type of route table. Valid value: <ul style="list-style-type: none"> <li>Custom : A custom route table</li> <li>System : A system route table</li> </ul> |
| CreationTime    | String | The time when the route table was created. The form is YYYY-MM-DDThh:mmZ.                                                                                    |
| RouteTable Name | String | The name of the route table.                                                                                                                                 |
| Description     | String | The description of the route table.                                                                                                                          |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DescribeRouteTableList
&RegionId=cn-qingdao
&RouteTableName=myRouteTable
&VpcId=vpc-m5epxxxxxx
&CommonParameters
```

### Response example

#### • XML format

```
<?xml version="1.0" encoding="UTF-8"?>
<DescribeRouteTableListsResponse>
  <Code>200</Code>
  <Message>successful</Message>
  <PageNumber>1</PageNumber>
  <PageSize>10</PageSize>
  <RequestId>87261511-FEB9-4BEC-85BF-70XXXXXXXXXX</RequestId>
  <RouteTableList>
```

```

< RouterTable eListType >
< CreationTime > 2018 - 08 - 03T08 : 14 : 54Z </ CreationTime >
< Description > ddd </ Description >
< RouteTableId > vtb - m5evbtbptn x2bXXXXXXXX XX </
RouteTableId >
< RouteTableName > aaa1111 </ RouteTableName >
< RouteTableType > Custom </ RouteTableType >
< RouterId > vrt - m5egeuhgj5 2xgXXXXXXXX XX </ RouterId >
< RouterType > VRouter </ RouterType >
< VSwitchIds >
< VSwitchId > vsw - m5e3r57pxk gijXXXXXXXX XX </ VSwitchId >
</ VSwitchIds >
< VpcId > vpc - m5epe3ag3q XXXXXXXXXXX </ VpcId >
</ RouterTable eListType >
</ RouterTable eList >
< Success > true </ Success >
< TotalCount > 1 </ TotalCount >
</ DescribeRouteTableList >

```

- JSON format

```

{
  "code": "200",
  "message": "successful",
  "pagenumber": 1,
  "pagesize": 10,
  "requestid": "87261511 - FEB9 - 4BEC - 85BF - 70XXXXXXXX X",
  "RouterTable eList": {
    "RouterTable eListType": [
      {
        "CreationTime": "2018 - 08 - 03T08 : 14 : 54Z",
        "Description": "ddd",
        "RouteTableId": "vtb - m5evbtbptn x2bXXXXXXXX XX",
        "RouteTableName": "aaa1111",
        "RouteTableType": "Custom",
        "RouterId": "vrt - m5egeuhgj5 2xgXXXXXXXX XX",
        "routerType": "VRouter",
        "Vswitchids": {
          "VSwitchId": [
            "vsw - m5e3r57pxk gijXXXXXXXX XX"
          ]
        },
        "VpcId": "vpc - m5epe3ag3q XXXXXXXXXXX"
      }
    ]
  },
  "Success": true,
  "TotalCount": 1
}

```

## 8.3 DescribeRouteTables

Queries route entries in a route table.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter       | Type    | Required? | Example value             | Description                                                                                                                                                                   |
|-----------------|---------|-----------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action          | String  | Yes       | DescribeRouteTables       | The name of this action. Value: DescribeRouteTables                                                                                                                           |
| RegionId        | String  | Yes       | cn-hangzhou               | The region ID of the VPC to which the route table to be queried belongs.                                                                                                      |
| PageNumber      | Integer | No        | 10                        | The number of pages to return. Default value: 1 .                                                                                                                             |
| PageSize        | Integer | No        | 10                        | The number of rows per page. Maximum value: 50 . Default value: 10 .                                                                                                          |
| ResourceGroupId | String  | No        | rg-acfmxazb4ph6aiy        | The ID of the resource group.                                                                                                                                                 |
| RouteTableId    | String  | No        | rtb-bp12mw1f8k3jgygk9bmwe | The ID of the route table.                                                                                                                                                    |
| RouteTableName  | String  | No        | RouteTable-1              | The name of the route table.                                                                                                                                                  |
| RouterId        | String  | No        | vtb-bp1krxxzp0c29fmontba1 | The ID of the VRouter or VBR to which the route table to be queried belongs.                                                                                                  |
| RouterType      | String  | No        | VRouter                   | The type of the router to which the route table to be queried belongs. Valid value:<br><ul style="list-style-type: none"> <li>VRouter : VRouter</li> <li>VBR : VBR</li> </ul> |
| Type            | String  | No        | custom                    | The type of the route table.                                                                                                                                                  |
| VRouterId       | String  | No        | vtb-bp1krxxzp0c29fmontba1 | The ID of the VRouter to which the route table to be queried belongs. The value of the RouterType parameter is set to VRouter automatically when this parameter is specified. |

## Response parameters

| Parameter                 | Type   | Example value                 | Description                                                                                                                                                                                 |
|---------------------------|--------|-------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RouteTables               | N/A    | N/A                           | A list of route tables.                                                                                                                                                                     |
| └RouteTable<br>Id         | String | vtb-bp145q7gln<br>uzdvzu21pom | The ID of the route table to which the route entry belongs.                                                                                                                                 |
| └CreationTi<br>me         | String | 2017-08-22T10:40<br>:25Z      | The time when the route table was created.                                                                                                                                                  |
| └ResourceGr<br>oupId      | String | rg-acfmxazb4p<br>h6aiy        | The ID of the resource group.                                                                                                                                                               |
| └RouteEntry<br>s          | N/A    | N/A                           | A list of route entries.                                                                                                                                                                    |
| └RouteTable<br>Id         | String | vtb-bp145q7gln<br>uzdvzu21pom | The ID of the route table to which the route entry belongs.                                                                                                                                 |
| └Destinatio<br>nCidrBlock | String | 192.168.0.1/24                | The destination CIDR block of the route entry.                                                                                                                                              |
| └Type                     | String | System                        | The type of the route entry. Valid values: <ul style="list-style-type: none"> <li>System: system route</li> <li>Custom: custom route</li> <li>BGP: BGP route</li> </ul>                     |
| └NextHopTyp<br>e          | String | HaVip                         | The type of the next hop. Valid values: <ul style="list-style-type: none"> <li>Instance: ECS instance (default)</li> <li>HaVip: HaVip</li> <li>RouterInterface: router interface</li> </ul> |
| └Status                   | String | Pending                       | The status of the route entry. Valid values: <ul style="list-style-type: none"> <li>Pending: being configured</li> <li>Available: available</li> <li>Modifying: being modified</li> </ul>   |
| └InstanceId               | String | ri-2zeo3xzyf3<br>8r4urzdvpvfs | The instance ID of the next hop.                                                                                                                                                            |
| └NextHops                 | N/A    | N/A                           | A list of next hops of ECMP routes.                                                                                                                                                         |

| Parameter                   | Type    | Example value                        | Description                                                                                                                                                                                 |
|-----------------------------|---------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>NextHopType</code>    | String  | HaVip                                | The type of the next hop. Valid values: <ul style="list-style-type: none"> <li>Instance: ECS instance (default)</li> <li>HaVip: HaVip</li> <li>RouterInterface: router interface</li> </ul> |
| <code>NextHopId</code>      | String  | ri-2zeo3xzyf38r4urzdvpqw             | The instance ID of the next hop.                                                                                                                                                            |
| <code>Enabled</code>        | Integer | 0                                    | Whether to enable the next hop. <ul style="list-style-type: none"> <li>0: disabled</li> <li>1: enabled</li> </ul>                                                                           |
| <code>Weight</code>         | Integer | 80                                   | The routing weight of the next hop.                                                                                                                                                         |
| <code>RouteTableType</code> | String  | System                               | The type of the route table to be queried.                                                                                                                                                  |
| <code>VRouterId</code>      | String  | vrt-bp1lhl0tai krteen80oxx           | The ID of the VRouter.                                                                                                                                                                      |
| <code>VSwitchIds</code>     | N/A     | vsw-bp14cagpfy sr29feg5t97           | A list of VSwitches under the VPC.                                                                                                                                                          |
| <code>TotalCount</code>     | Integer | 12                                   | The number of queried entries.                                                                                                                                                              |
| <code>PageNumber</code>     | Integer | 1                                    | The current page number.                                                                                                                                                                    |
| <code>PageSize</code>       | Integer | 1                                    | The number of entries per page.                                                                                                                                                             |
| <code>RequestId</code>      | String  | DC668356-BCB4-42FD-9BC3-FA2B2E04B634 | The ID of the request.                                                                                                                                                                      |

## Examples

### Request example

```
http ( s ) : // vpc . aliyuncs . com / ? Action = DescribeRouteTables
&< CommonParameters >
```

### Response example

#### • XML format

```
< DescribeRouteTablesResponse >
  < PageNumber > 1 </ PageNumber >
  < TotalCount > 1 </ TotalCount >
  < PageSize > 10 </ PageSize >
```

```

< RequestId > DC668356 - BCB4 - 42FD - 9BC3 - FA2B2E04B6 34 </
RequestId >
< RouteTable s >
  < RouteTable >
    < CreationTime > 2017 - 08 - 22T10 : 40 : 25Z </ CreationTime >
    < RouteEntry s >
      < RouteEntry >
        < NextHops />
        < Status > Available </ Status >
        < Type > Custom </ Type >
        < InstanceId > ri - 2zeo3xzyf3 8r4urzdvpvf s </
InstanceId >
        < NextHopType > RouterInterface </ NextHopType >
        < RouteTableId > vtb - 2zevpmy9th 8cxmwrtarqg 4 </
RouteTableId >
        < DestinationCidrBlock > 10 . 10 . 0 . 0 / 24 </
DestinationCidrBlock >
      </ RouteEntry >
      < RouteEntry >
        < NextHops />
        < Status > Available </ Status >
        < Type > System </ Type >
        < InstanceId />
        < NextHopType > service </ NextHopType >
        < RouteTableId > vtb - 2zevpmy9th 8cxmwrtarqg 4 </
RouteTableId >
        < DestinationCidrBlock > 100 . 64 . 0 . 0 / 10 </
DestinationCidrBlock >
      </ RouteEntry >
    </ RouteEntry s >
    < RouteTableId > vtb - 2zevpmy9th 8cxmwrtarqg 4 </
RouteTableId >
    < RouteTableType > System </ RouteTableType >
    < VRouterId > vrt - 2zefso23vm u6xi3jeiw0 z </ VRouterId >
  </ RouteTable >
</ RouteTable s >
</ DescribeRouteTablesResponse >

```

• JSON format

```

{
  "PageNumber": 1,
  "TotalCount": 1,
  "PageSize": 10,
  "RequestId": "DC668356 - BCB4 - 42FD - 9BC3 - FA2B2E04B6 34",
  "RouteTable s": {
    "RouteTable": [
      {
        "CreationTime": "2017 - 08 - 22T10 : 40 : 25Z",
        "RouteEntry s": {
          "RouteEntry": [
            {
              "Status": "Available",
              "NextHops": {
                "NextHop": []
              },
              "Type": "Custom",
              "InstanceId": "ri - 2zeo3xzyf3 8r4urzdvpvf s",
              "RouteTableId": "vtb - 2zevpmy9th 8cxmwrtarqg 4",
              "NextHopType": "RouterInterface",
              "DestinationCidrBlock": "10 . 10 . 0 . 0 / 24"
            }
          ]
        }
      }
    ]
  }
}

```

```

{
  " Status ":" Available ",
  " NextHops ":{
    " NextHop ":[ ]
  },
  " Type ":" System ",
  " InstanceId ":"",
  " RouteTable Id ":" vtb - 2zevpmy9th 8cxmwтарqg 4 ",
  " NextHopType e ":" service ",
  " Destinatio nCidrBlock ":" 100 . 64 . 0 . 0 / 10 "
}
]
},
" RouteTable Id ":" vtb - 2zevpmy9th 8cxmwтарqg 4 ",
" VRouterId ":" vrt - 2zefso23vm u6xi3jeiw0 z ",
" RouteTable Type ":" System "
}
]
}
}

```

## Error codes

[See common error codes](#)

## 8.4 CreateRouteTable

Creates a custom route table.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter | Type   | Required? | Example value            | Description                                                                                                 |
|-----------|--------|-----------|--------------------------|-------------------------------------------------------------------------------------------------------------|
| Action    | String | Yes       | CreateRouteTable         | The name of this action. Value: CreateRouteTable                                                            |
| RegionId  | String | Yes       | cn-hangzhou              | The region ID of the VPC to which the route table belongs.<br>To query the region ID, call DescribeRegions. |
| VpcId     | String | Yes       | vpc-bp1qpo0ku3a20qqe9h7v | The ID of the VPC to which the custom route table belongs.                                                  |

| Parameter      | Type   | Required? | Example value                       | Description                                                                                                                                                                                                                                                         |
|----------------|--------|-----------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ClientToken    | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length.                                                                                 |
| Description    | String | No        | The name of the route table         | The description of the route table.<br>The description must be 2 to 256 characters in length. The description must start with a letter, but cannot start with <code>http ://</code> or <code>https ://</code> .                                                     |
| RouteTableName | String | No        | myRouteTable                        | The name of the route table.<br>The name must be 2 to 128 characters in length. It can contain letters, numbers, periods (.), underscores (_), and hyphens (-). It must start with a letter and cannot start with <code>http ://</code> or <code>https ://</code> . |

### Response parameters

| Parameter    | Type   | Example value                         | Description                |
|--------------|--------|---------------------------------------|----------------------------|
| RequestId    | String | 0ED8D006-F706-4D23-88ED-E11ED28DCA C0 | The ID of the request.     |
| RouteTableId | String | vtb-bp145q7glnuzdvzu21pom             | The ID of the route table. |

### Examples

#### Request example

```
https :// vpc . aliyuncs . com /? Action = CreateRouteTable
& RegionId = cn - hangzhou
& VpcId = vpc - bp1qpo0kug 3a20qqe9h7 v
&< CommonParameters >
```

#### Response example

- XML format

```
< CreateRoute eTableResp onse >
  < RequestId > 62172DD5 - 6BAC - 45DF - 8D44 - xxxxxxxx </ RequestId
  >
  < RouteTable Id > " vtb - m5evbtbptx xxxxxxxxxx </ RouteTable Id
  >
</ CreateRoute eTableResp onse >
```

- JSON format

```
{
  " RequestId ":" 62172DD5 - 6BAC - 45DF - 8D44 - xxxxxxxx ",
  " RouteTable Id ":" vtb - m5evbtbptx xxxxxxxxxx x "
}
```

## Error codes

| HTTP status code | Error code                                     | Error message                           | Description                       |
|------------------|------------------------------------------------|-----------------------------------------|-----------------------------------|
| 400              | InvalidParameter.<br>Description.<br>Malformed | The specified Description is not valid. | The description is invalid.       |
| 404              | InvalidVpcId.<br>NotFound                      | Specified VPC does not exist.           | The specified VPC does not exist. |

[See common error codes](#)

## 8.5 AssociateRouteTable

Attaches a custom route table to a VSwitch in the same VPC.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

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

| Parameter    | Type   | Required? | Example value                       | Description                                                                                                                                                                         |
|--------------|--------|-----------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RegionId     | String | Yes       | cn-hangzhou                         | The region ID of the VPC to which the route table belongs.<br>To query the region ID, call DescribeRegions.                                                                         |
| RouteTableId | String | Yes       | vtb-bp145q7glnuzdvzu21pom           | The ID of the route table.                                                                                                                                                          |
| VSwitchId    | string | Yes       | vsw-25naue4gz                       | The ID of the VSwitch.                                                                                                                                                              |
| ClientToken  | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length. |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | DC668356-BCB4-42FD-9BC3-FA2B2E04B634 | The ID of the request. |

### Examples

#### Request example

```
http ( s ):// vpc . aliyuncs . com /? Action = AssociateRouteTable
& RegionId = cn - hangzhou
& RouteTableId = vtb - bp145q7glnuzdvzu21pom
& VSwitchId = vsw - 25naue4gz
&< CommonParameters >
```

#### Response example

##### · XML format

```
< AssociateRouteTableResponse >
```

```
< RequestId > 62172DD5 - 6BAC - 45DF - 8D44 - xxxxxxxx </ RequestId
>
</ AssociateRouteTableResponse >
```

- JSON format

```
{
  "RequestId": "62172DD5 - 6BAC - 45DF - 8D44 - xxxxxxxx"
}
```

#### Error codes

| HTTP status code | Error code                   | Error message                         | Description                               |
|------------------|------------------------------|---------------------------------------|-------------------------------------------|
| 404              | InvalidRouteTableId.NotFound | Specified route table does not exist. | The specified route table does not exist. |

[See common error codes](#)

## 8.6 UnassociateRouteTable

Detaches a route table from a VSwitch.

#### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

#### Request parameters

| Parameter    | Type   | Required? | Example value             | Description                                                                                                 |
|--------------|--------|-----------|---------------------------|-------------------------------------------------------------------------------------------------------------|
| Action       | String | Yes       | UnassociateRouteTable     | The name of this action. Value: UnassociateRouteTable                                                       |
| RegionId     | String | Yes       | cn-hangzhou               | The region ID of the VPC to which the route table belongs.<br>To query the region ID, call DescribeRegions. |
| RouteTableId | String | Yes       | vtb-bp145q7glnuzdvzu21pom | The ID of the route table.                                                                                  |

| Parameter   | Type   | Required? | Example value                       | Description                                                                                                                                                                         |
|-------------|--------|-----------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VSwitchId   | String | Yes       | vsw-25naue4gz                       | The ID of the VSwitch.                                                                                                                                                              |
| ClientToken | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length. |

### Response parameters

| Parameter | Type   | Example value                   | Description            |
|-----------|--------|---------------------------------|------------------------|
| RequestId | String | 62172DD5-6BAC-45DF-8D44-xxxxxxx | The ID of the request. |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=UnassociateRouteTable
&RegionId=cn-hangzhou
&RouteTableId=vtb-bp145q7gln-uzdvzu2lpo-m
&VSwitchId=vsw-25naue4gz
&<CommonParameters>
```

#### Response example

- XML format

```
<UnassociateRouteTableResponse>
  <RequestId>62172DD5-6BAC-45DF-8D44-xxxxxxx</RequestId>
</UnassociateRouteTableResponse>
```

- JSON format

```
{
  "RequestId": "62172DD5-6BAC-45DF-8D44-xxxxxxx"
```

```
}
```

### Error codes

| HTTP status code | Error code                   | Error message                         | Description                               |
|------------------|------------------------------|---------------------------------------|-------------------------------------------|
| 404              | InvalidRouteTableId.NotFound | Specified route table does not exist. | The specified route table does not exist. |

[See common error codes](#)

## 8.7 DeleteRouteTable

Deletes a custom route table.

### Debug

By using [OpenAPI Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter    | Type   | Required? | Example value             | Description                                                                                             |
|--------------|--------|-----------|---------------------------|---------------------------------------------------------------------------------------------------------|
| Action       | String | Yes       | DeleteRouteTable          | The name of this action. Value: DeleteRouteTable                                                        |
| RegionId     | String | Yes       | cn-hangzhou               | The region ID of the VPC to which the VRouter belongs.<br>To query the region ID, call DescribeRegions. |
| RouteTableId | String | Yes       | vtb-bp145q7glnuzdvzu21pom | The ID of the route table.                                                                              |

## Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | DC668356-BCB4-42FD-9BC3-FA2B2E04B634 | The ID of the request. |

## Examples

### Request example

```
https :// vpc . aliyuncs . com /? Action = DeleteRouteTable  
& RegionId = cn - hangzhou  
& RouteTableId = vtb - bp145q7gln - uzdvzu21po - m  
&< CommonParameters >
```

### Response example

- XML format

```
< DeleteRouteTableResponse >  
  < RequestId > 62172DD5 - 6BAC - 45DF - 8D44 - xxxxxxxx </ RequestId  
  >  
</ DeleteRouteTableResponse >
```

- JSON format

```
{  
  "RequestId ":" 62172DD5 - 6BAC - 45DF - 8D44 - xxxxxxxx "  
}
```

## Error codes

| HTTP status code | Error code             | Error message                                                      | Description                                                                     |
|------------------|------------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------|
| 400              | IncorrectVSwitchStatus | The current virtual switch status does not support this operation. | The specified VSwitch failed to be deleted because it is in the Pending status. |

[See common error codes](#)

## 8.8 CreateRouteEntry

Creates a route entry for a VRouter or VBR.

Note the following before you create a route entry for a VRouter:

- Up to 48 custom route entries can be created in a route table.
- The destination CIDR block of each custom route entry cannot be the same as the CIDR block of the VSwitch, and it cannot include or be included by the CIDR block of the VSwitch.
- The destination CIDR block of each custom route entry cannot be 100.64.0.0/10 or be included by 100.64.0.0/10.
- The destination CIDR blocks of route entries in the same route table cannot be the same.
- If the destination CIDR block is an IP address, the mask /32 is used.
- Multiple route entries can point to the same next hop.
- The next hop of each custom route entry and the route table must be in the same VPC.
- ECMP can be configured by using the `NextHopList` parameter.
- When adding a normal custom route entry (non-ECMP), you must specify the `DestinationCidrBlock`, `NextHopType` and `NextHopId` parameters, and you cannot specify the `NextHopList` parameter.
- When adding an ECMP route entry, you must specify the `DestinationCidrBlock` and `NextHopList` parameters, and you cannot specify the `NextHopType` and `NextHopId` parameters.

Note the following before you create a route entry for a VBR:

- Up to 48 custom route entries can be created in a route table.
- The `NextHopList` parameter is not supported.
- The destination CIDR block of each custom route entry cannot be 100.64.0.0/10 or be included in 100.64.0.0/10.
- The destination CIDR blocks of route entries in the same route table cannot be the same.
- If the destination CIDR block is an IP address, the mask /32 is used.
- Multiple route entries can point to the same next hop ( `NextHopId` ).

- The next hop ( `NextHopId` ) of each route entry must be a router interface associated with the VBR.
- The route entry can only be added when the VBR is in the Active status and the corresponding physical connection is in the Enabled status and not financially locked.
- Only common route entries (non- ECMP) can be added. You must specify the `DestinationCidrBlock` , `NextHopType` , and `NextHopId` parameters, and you cannot specify the `HopList` parameter.

## Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter            | Type   | Required? | Example value    | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------|--------|-----------|------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action               | String | Yes       | CreateRouteEntry | The name of this action. Value: CreateRouteEntry                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| DestinationCidrBlock | String | Yes       | 192.168.0.1/24   | The destination CIDR block of the route entry. It must meet the following requirements: <ul style="list-style-type: none"> <li>• The destination CIDR block cannot be 100.64.0.0/10 or any of its subnets.</li> <li>• Different route entries in a route table cannot use the same destination CIDR block.</li> </ul> (Default) <ul style="list-style-type: none"> <li>• If the destination CIDR block is an IP address, the mask /32 is used by default.</li> <li>• If the destination CIDR block is an IPv6 address, the mask /128 is used.</li> </ul> |
| RegionId             | String | Yes       | cn-hangzhou      | The ID of the region to which the route table belongs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| Parameter                 | Type    | Required? | Example value                       | Description                                                                                                                                                                                                                                                                                                                   |
|---------------------------|---------|-----------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RouteTableId              | String  | Yes       | vtb-bp145q7glnuzdvzu21pom           | The ID of the route table.                                                                                                                                                                                                                                                                                                    |
| ClientToken               | String  | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length.                                                                                                                                           |
| NextHopId                 | String  | No        | ri-2zeo3xzyf38r4urzdvpfs            | The ID of the next hop.                                                                                                                                                                                                                                                                                                       |
| NextHopList.N.NextHopId   | String  | No        | ri-2zeo3xzyf38r4urzdvp21            | The ID of the next hop.                                                                                                                                                                                                                                                                                                       |
| NextHopList.N.NextHopType | String  | No        | RouterInterface                     | The type of the next hop. Valid values: <ul style="list-style-type: none"> <li>Instance: ECS instance (default)</li> <li>HaVip: HaVip</li> <li>RouterInterface: router interface</li> </ul>                                                                                                                                   |
| NextHopList.N.Weight      | Integer | No        | 10                                  | The routing weight of the next hop.                                                                                                                                                                                                                                                                                           |
| NextHopType               | String  | No        | RouterInterface                     | The type of the next hop. Valid values: <ul style="list-style-type: none"> <li>Instance : ECS instance (default)</li> <li>HaVip : HaVip</li> <li>RouterInterface : router interface</li> <li>NetworkInterface : Elastic Network Interface ENI)</li> <li>VpnGateway: VPN gateway</li> <li>IPv6Gateway: IPv6 gateway</li> </ul> |

## Response parameters

| Parameter | Type   | Example value                            | Description            |
|-----------|--------|------------------------------------------|------------------------|
| RequestId | String | 0ED8D006-F706-4D23-88ED-E11ED28DCA<br>C0 | The ID of the request. |

## Examples

### Request example

```
https :// vpc . aliyuncs . com /? Action = CreateRouteEntry  
& DestinationCidrBlock = 192 . 168 . 0 . 1 / 24  
& RouteTableId = vtb - bp145q7gln - uzdvzu2lpo - m  
&< CommonParameters >
```

## Response parameters

- XML format

```
< CreateRouteEntryResponse >  
  < RequestId > 12D086F6 - 8F31 - 4658 - 84C1 - 006DED011A - 85 </  
  RequestId >  
</ CreateRouteEntryResponse >
```

- JSON format

```
{  
  "RequestId": "12D086F6 - 8F31 - 4658 - 84C1 - 006DED011A - 85 "  
}
```

## Error codes

| HTTP status code | Error code                 | Error message                      | Description                            |
|------------------|----------------------------|------------------------------------|----------------------------------------|
| 404              | InvalidInstanceId.NotFound | Specified instance does not exist. | The specified Instance does not exist. |
| 400              | MissingParameter           | Miss mandatory parameter.          | Required parameters are missing.       |
| 404              | InvalidNextHopId.NotFound  | Specified next hop does not exist. | The specified next hop does not exist. |

| HTTP status code | Error code                   | Error message                                            | Description                                                                                                                                                                                                                                                                                                                                              |
|------------------|------------------------------|----------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 404              | InvalidRouteTableId.NotFound | Specified route table does not exist.                    | The specified route table does not exist.                                                                                                                                                                                                                                                                                                                |
| 400              | InvalidCIDRBlock.Duplicate   | Specified CIDR block is already exists.                  | The specified CIDR block already exists.                                                                                                                                                                                                                                                                                                                 |
| 400              | IncorrectVpcStatus           | Current VPC status does not support this operation .     | The status of VPC does not support the action.                                                                                                                                                                                                                                                                                                           |
| 400              | IncorrectInstanceStatus      | Current instance status does not support this operation. | The current instance status does not support this operation.                                                                                                                                                                                                                                                                                             |
| 400              | QuotaExceeded                | Route entry quota exceeded in this route table.          | The route entry quota is exceeded.                                                                                                                                                                                                                                                                                                                       |
| 400              | IncorrectRouteEntryStatus    | Some route entry status blocked this operation.          | The route table includes entries in the Pending or Modifying status.                                                                                                                                                                                                                                                                                     |
| 400              | InvalidCidrBlock             | Specified CIDR block is not valid.                       | The specified CIDR block is invalid. The following are possible causes: 1. You cannot use this CIDR block because it is not configured in the whitelist of IP address 10.0.0.0/8. 2. The destination CIDR block of the added route entry cannot belong to any of the CIDR blocks of VSwitches in the same VPC. 3.The CIDK block cannot be 100.64.0.0/10. |
| 400              | InvalidNextHopType           | Specified parameter "NextHopType" is not valid           | The specified next hop type is invalid.                                                                                                                                                                                                                                                                                                                  |
| 400              | InvalidNextHop.NotFound      | Specified next hop does not exist.                       | The specified next hop does not exist.                                                                                                                                                                                                                                                                                                                   |

| HTTP status code | Error code                              | Error message                                                                                | Description                                                          |
|------------------|-----------------------------------------|----------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| 400              | InvalidVRouter.NotFound                 | vRouter not exists.                                                                          | The VRouter does not exist.                                          |
| 400              | InvalidNextHopTypeAndList.BothNull      | both nexthopType and nextHopList are null.                                                   | The nexthopType and nexthopList are null.                            |
| 400              | InvalidNextHopTypeAndList.BothNotNull   | both nexthopType and nextHopList are not null.                                               | The nexthopType and nexthopList cannot be null at the same time.     |
| 400              | InvalidRouterInterface                  | invalid router interface.                                                                    | The router interface is invalid.                                     |
| 400              | InvalidOppositeRouterType               | nexthop list cannot only contain router interface whose opposite router interface is on vbr. | The peer router type of the next-hop router interface must be a VBR. |
| 400              | InvalidNextHopListSize                  | nexthop size is illegal. Must be between 2 and 4.                                            | You must specify 2 to 4 router interfaces as the next hop.           |
| 400              | InvalidEntryRuleQuota.NotFound          | Route entry quota rule not exists.                                                           | The quota rule of the route entry does not exist.                    |
| 400              | Forbidden.CheckEntryRuleQuota           | Route entry quota rule check error.                                                          | An error occurred while checking the route entry quota.              |
| 400              | InvalidVBRStatus                        | invalid virtual border router status.                                                        | The status of the VBR is invalid.                                    |
| 400              | InvalidPhysicalConnectionBusinessStatus | invalid physical connection business status.                                                 | The status of the physical connection is invalid.                    |
| 404              | InvalidHaVipId.NotFound                 | The specified HaVip does not exist in the specified VPC.                                     | The specified HAVIP does not exist in the specified VPC.             |

| HTTP status code | Error code                             | Error message                                                                                 | Description                                                                                                                                                                |
|------------------|----------------------------------------|-----------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 400              | IncorrectHaVipStatus                   | This operation is denied because satus of the specified HaVip is neither Available nor InUse. | It is not allowed to do this because the status of the HAVIP is Available or InUse.                                                                                        |
| 400              | CountLimit Exceed.<br>HaVipRoute Entry | There can be 5 route entry to HaVip at most in one route table.                               | The number of custom route entries pointing to the specified HaVip instance has reached the limit.                                                                         |
| 400              | InvalidRouteEntry.<br>Duplicate        | The route entry already exist.                                                                | The route entry already exists.                                                                                                                                            |
| 403              | IncorrectInstanceStatus                | The current status of the resource does not support this operation.                           | The current resource status does not support this operation.                                                                                                               |
| 400              | InvalidCidrBlock                       | Specified CIDR block is already exists.                                                       | The specified CIDR block overlaps the CIDR block of another VSwitch or the destination CIDR block of an existing custom route entry. Select a CIDR block that is not used. |
| 400              | IncorrectRouteEntryStatus              | Specified routeEntry status error.                                                            | The route table includes entries in the Pending or Modifying status.                                                                                                       |
| 400              | IncorrectRouteEntryStatus              | The vpc has NotStable routeEntry status.                                                      | The route table includes entries in the Pending or Modifying status.                                                                                                       |
| 400              | IncorrectRouteEntryStatus              | VBR has NotStable route entry.                                                                | The route table includes entries in the Pending or Modifying status.                                                                                                       |
| 400              | InvalidParam                           | The Ecmp routerEntry with router interfaces local vgw vip not match.                          | 路由条目与路由器接口本地视频网关VIP不匹配。                                                                                                                                                    |
| 400              | INVALID_WEIGHT_PARAM                   | Specified value of weight invalid                                                             | The specified weight is invalid.                                                                                                                                           |

| HTTP status code | Error code                            | Error message                            | Description                                                                      |
|------------------|---------------------------------------|------------------------------------------|----------------------------------------------------------------------------------|
| 400              | FORBIDDEN_USE_VPC_AS_INTERNET_GATEWAY | The Specified CIDR must be in vpc CIDR.  | The specified CIDR block must be a subset of the VPC CIDR block.                 |
| 400              | INVALID_VPC_ID                        | The Specified VpcId not match.           | The specified VPC does not exist.                                                |
| 400              | InvalidRouteEntrySize                 | The Specified routeEntry size not legal. | To configure ECMP, you must configure 2 to 4 router interfaces as the next hops. |
| 400              | InvalidRouteEntry                     | Specified routeEntry not exist.          | The specified route entry does not exist.                                        |

[See common error codes](#)

## 8.9 DeleteRouteEntry

Deletes a router entry from a route table.

Note the following before deleting a route entry:

- You can only delete a route entry that is in the available state.
- You cannot delete a route entry from a VPC that is creating or deleting a VSwitch or route entry.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

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

| Parameter                 | Type   | Required? | Example value             | Description                                                                                                                                                                                 |
|---------------------------|--------|-----------|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| DestinationCidrBlock      | String | Yes       | 0.0.0.0/0                 | The destination CIDR block of the route entry to be deleted. Both IPv4 and IPv6 CIDR blocks are supported.                                                                                  |
| RegionId                  | String | Yes       | cn-hangzhou               | The ID of the region to which the route table belongs.                                                                                                                                      |
| RouteTableId              | String | Yes       | trb-2ze3jgygk9bmsj23sfe12 | The ID of the route table to which the route entry to be deleted belongs.                                                                                                                   |
| NextHopId                 | String | No        | ri-2zeo3xzyf38r4urzdps    | The instance ID of the next hop.                                                                                                                                                            |
| NextHopList.N.NextHopId   | String | No        | ri-2zeo3xzyf38r43cds23qw  | The instance ID of the next hop.                                                                                                                                                            |
| NextHopList.N.NextHopType | String | No        | RouterInterface           | The type of the next hop. Valid values: <ul style="list-style-type: none"> <li>Instance: ECS instance (default)</li> <li>HaVip: HaVip</li> <li>RouterInterface: router interface</li> </ul> |

### Response parameters

| Parameter | Type   | Example value                         | Description            |
|-----------|--------|---------------------------------------|------------------------|
| RequestId | String | 0ED8D006-F706-4D23-88ED-E11ED28DCA C0 | The ID of the request. |

### Example

#### Request example

```
https://vpc.aliyuncs.com/?Action=DeleteRouteEntry&DestinationCidrBlock=0.0.0.0/0
```

```
& RouteTable Id = trb - 2ze3jgygk9 bmsj23sfe1 2
&< CommonParameters >
```

### Response example

- XML format

```
< DeleteRouteResponse >
  < RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 </
    RequestId >
</ DeleteRouteResponse >
```

- JSON format

```
{
  "RequestId": "0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0"
}
```

### Error codes

| HTTP status code | Error code                   | Error message                                                | Description                                                                                                |
|------------------|------------------------------|--------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 400              | MissingParameter             | Miss mandatory parameter.                                    | The required parameters are missing.                                                                       |
| 400              | IncorrectRouteEntryStatus    | Some route entry status blocked this operation.              | This operation cannot be performed because one or more route entries is in the pending or modifying state. |
| 404              | InvalidRouteTableId.NotFound | Specified route table does not exist.                        | The specified route table does not exist.                                                                  |
| 400              | OperationDenied              | Specified operation is denied as route entry type is system. | This operation cannot be performed because the route entry is the system route entry.                      |
| 400              | InvalidRouteEntry.NotFound   | Route entry not exists.                                      | The route entry does not exist.                                                                            |
| 400              | InvalidVRouter.NotFound      | vRouter not exists.                                          | The router does not exist.                                                                                 |

| HTTP status code | Error code                | Error message                                          | Description                                                              |
|------------------|---------------------------|--------------------------------------------------------|--------------------------------------------------------------------------|
| 400              | IncorrectRouteEntryStatus | VBR has NotStable route entry.                         | The VBR route table contains entries in the Pending or Modifying status. |
| 400              | IncorrectRouteEntryStatus | Specified routeEntry status error.                     | The route table contains entries in the Pending or Modifying state.      |
| 400              | Forbidden                 | Specified RouteEntry cannot allowed delete by openApi. | You cannot delete the route entry by calling an API.                     |
| 400              | InvalidRouteEntry         | Specified routeEntry not exist.                        | The specified route entry does not exist.                                |
| 400              | IncorrectRouteEntryStatus | Vpc NotStable route entry.                             | The route table contains entries in the Pending or Modifying state.      |
| 400              | IncorrectVpcStatus        | Current VPC status does not support this operation .   | The status of VPC does not support the action.                           |

[See common error codes](#)

## 9 Router interface

### 9.1 CreateRouterInterface

Creates a router interface.

Note the following before you call this action:

- Up to one pair of interconnected router interfaces can be created between two VRouter.
- Up to five router interfaces can be created on a VRouter.
- If a delinquent router interface is under your account, you can no longer create router interfaces.
- Route entries in the same route table cannot have the same destination CIDR blocks.
- The VBR must be the connection initiator and must be in the Activated status.



**Note:**

Router interfaces created by calling this action only support the Pay-As-You-Go billing method.

#### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

#### Request parameters

| Parameter        | Type   | Required? | Example value         | Description                                           |
|------------------|--------|-----------|-----------------------|-------------------------------------------------------|
| Action           | String | Yes       | CreateRouterInterface | The name of this action. Value: CreateRouterInterface |
| OppositeRegionId | String | Yes       | cn-shanghai           | The region of the connection acceptor.                |

| Parameter  | Type   | Required? | Example value                 | Description                                                                                                                                                                                |
|------------|--------|-----------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RegionId   | String | Yes       | cn-hangzhou                   | The region to which the router interface belongs.<br>To query the region ID, call DescribeRegions.                                                                                         |
| Role       | String | Yes       | Initiating Side AcceptingSide | The role of the router interface. Valid values:<br><ul style="list-style-type: none"> <li>Initiating Side : Connection initiator.</li> <li>AcceptingSide : Connection acceptor.</li> </ul> |
| RouterId   | String | Yes       | cn-hangzhou                   | The ID of the router associated with the router interface.                                                                                                                                 |
| RouterType | String | Yes       | VRouter                       | The type of the router associated with the router interface. Valid values:<br><ul style="list-style-type: none"> <li>VRouter : VRouter</li> <li>VBR : VBR</li> </ul>                       |

| Parameter     | Type   | Required? | Example value         | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|---------------|--------|-----------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Spec          | String | Yes       | Large                 | <p>The specification of the router interface. The following are available specifications and the corresponding bandwidths:</p> <ul style="list-style-type: none"> <li>• Mini . 2 : 2 Mbps</li> <li>• Mini . 5 : 5 Mbps</li> <li>• Small . 1 : 10 Mbps</li> <li>• Small . 2 : 20 Mbps</li> <li>• Small . 5 : 50 Mbps</li> <li>• Middle . 1 : 100 Mbps</li> <li>• Middle . 2 : 200 Mbps</li> <li>• Middle . 5 : 500 Mbps</li> <li>• Large . 1 : 1000 Mbps</li> <li>• Large . 2 : 2000 Mbps</li> <li>• Large . 5 : 5000 Mbps</li> <li>• Xlarge . 1 : 10000 Mbps</li> </ul> <div>  <b>Note:</b><br/> The value of Spec is Negative when the role is AcceptingSide. </div> |
| AccessPointId | String | No        | ap-cn-shanghaiSZ-pd-A | <p>The ID of the access point to which the VBR belongs.</p> <p>To query the region ID, call DescribeAccessPoints.</p> <div>  <b>Note:</b><br/> You must specify this parameter in the scenario of physical access. </div>                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| Parameter           | Type   | Required? | Example value           | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------|--------|-----------|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AutoPay             | String | No        | false                   | <p>Whether the order is paid automatically. Valid values:</p> <ul style="list-style-type: none"> <li>false Automatic payment is not enabled. You need to go to the <a href="#">Order center</a> to complete the payment after the order is generated.</li> <li>true : Automatic payment is enabled and the order is paid automatically.</li> </ul> <div>  <b>Note:</b><br/>           This parameter is required if the value of InstanceChargeType is PrePaid .         </div> |
| ClientToken         | String | No        | sjffha123334            | <p>A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and is guaranteed to be unique among different requests. It must be 1 to 64 ASCII characters in length.</p>                                                                                                                                                                                                                                                                                                                                     |
| Description         | String | No        | This is my description. | <p>The description of the router interface. The description must be 2 to 256 characters in length. It must start with a letter but cannot start with <code>http://</code> or <code>https://</code>.</p>                                                                                                                                                                                                                                                                                                                                                          |
| HealthCheckSourceIp | String | No        | 116.62.222.28           | <p>The source IP address used to perform health check. It must be an unused IP address of the local VPC.</p> <div>  <b>Note:</b><br/>           You can specify this parameter in the scenario of physical access.         </div>                                                                                                                                                                                                                                             |

| Parameter                | Type   | Required? | Example value            | Description                                                                                                                                                                                                                                                                                                                              |
|--------------------------|--------|-----------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| HealthCheckTargetIp      | String | No        | 116.62.222.28            | <p>The destination IP address of health check.</p> <div>  <b>Note:</b><br/>           This parameter is required if the <code>HealthCheckSourceIp</code> parameter is specified.         </div>                                                         |
| InstanceChargeType       | String | No        | PrePaid                  | <p>The billing method of the router interface. Valid values:</p> <ul style="list-style-type: none"> <li>PostPaid (default): Pay-As-You-Go</li> </ul>                                                                                                                                                                                     |
| Name                     | String | No        | Router interface 1       | <p>The name of the router interface. The name must be 2 to 128 characters in length. It can contain letters, numbers, periods (.), underscores (_), and hyphens (-). It must start with a letter but cannot start with <code>http ://</code> or <code>https ://</code>.</p>                                                              |
| OppositeAccessPointId    | String | No        | ap-cn-shanghaiSZ-pd-A    | <p>The ID of the access point of the peer router interface.</p> <div>  <b>Note:</b><br/>           This parameter is required when the peer router interface is on a VBR. It cannot be modified after the router interface is created.         </div> |
| OppositeInterfaceId      | String | No        | ri-2zeo3xzyf38r4urzdvpfs | The ID of the peer router interface.                                                                                                                                                                                                                                                                                                     |
| OppositeInterfaceOwnerId | String | No        | fffsf                    | The ID of the owner of the peer router interface.                                                                                                                                                                                                                                                                                        |
| OppositeRouterId         | String | No        | vrt-bp1lhl0taikrteen80ox | The ID of the peer router.                                                                                                                                                                                                                                                                                                               |

| Parameter          | Type   | Required? | Example value | Description                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------|--------|-----------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OppositeRouterType | String | No        | VRouter       | <p>The type of the router associated with the peer router interface. Valid values:</p> <ul style="list-style-type: none"> <li>· VRouter : VRouter</li> <li>· VBR : VBR</li> </ul>                                                                                                                                                                                                                                                   |
| Period             | String | No        | 3             | <p>The validity period of the purchase. Value ranges:</p> <ul style="list-style-type: none"> <li>· Payments on a monthly basis: 1 to 9.</li> <li>· Payments on a yearly basis: 1 to 3.</li> </ul> <div>  <b>Note:</b><br/> When the value of the InstanceChargeType parameter is PrePaid , this parameter is required. </div>                      |
| PricingCycle       | String | No        | Month         | <p>The billing cycle of the Subscription billing method. Valid values:</p> <ul style="list-style-type: none"> <li>· Month (default): billing on a monthly basis</li> <li>· Year : billing on a yearly basis</li> </ul> <div>  <b>Note:</b><br/> This parameter is required if the value of the InstanceChargeType parameter is PrePaid 5. </div> |

#### Response parameters

| Parameter | Type   | Example value   | Description                                                                                 |
|-----------|--------|-----------------|---------------------------------------------------------------------------------------------|
| OrderId   | String | 202008594930117 | The order number. This parameter is returned if you select the Subscription billing method. |

| Parameter         | Type   | Example value                                        | Description                     |
|-------------------|--------|------------------------------------------------------|---------------------------------|
| RequestId         | String | 079874CD-<br>AEC1-<br>43E6-AC03-<br>ADD96B6E49<br>07 | The ID of the request.          |
| RouterInterfaceId | String | ri-<br>2ze7fbuohm<br>xxxxxx                          | The ID of the router interface. |

## Examples

### Request example

```
http ( s ) : / / vpc . aliyuncs . com / ? Action = CreateRouterInterface
& OppositeRegionId = cn - shanghai
& RegionId = cn - hangzhou
& Role = Initiating Side | Accepting Side
& RouterId = cn - hangzhou
& RouterType = VRouter
& Spec = Large
&< CommonParameters >
```

### Response example

- XML format

```
< CreateRouterInterfaceResponse >
  < RequestId > 980960B0 - 2969 - 40BF - 8542 - EBB34FD358 AB </
RequestId >
  < RouterInterfaceId > ri - 2ze7fbuohm xxxxxx </ RouterInterfaceId >
</ CreateRouterInterfaceResponse >
```

- JSON format

```
{
  " RouterInterfaceId ":" ri - 2ze7fbuohm xxxxxx ",
  " RequestId ":" 980960B0 - 2969 - 40BF - 8542 - EBB34FD358 AB "
```

}

## Error codes

| HTTP status code | Error code                                    | Error message                                                              | Description                                                                                                                            |
|------------------|-----------------------------------------------|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound                      | The regionId provided does not exist in our records.                       | The specified region ID does not exist.                                                                                                |
| 400              | InvalidRole.ValueNotSupported                 | The specified Role is not valid.                                           | The specified role is invalid.                                                                                                         |
| 400              | InvalidSpec.ValueNotSupported                 | The specified Spec is not supported.                                       | The specified specification is not supported.                                                                                          |
| 400              | InvalidRouterType.ValueNotSupported           | The specified RouterType is not valid.                                     | The specified router type is invalid.                                                                                                  |
| 404              | InvalidRouterId.NotFound                      | The specified RouterId does not exist in our records.                      | The specified router ID does not exist.                                                                                                |
| 400              | InvalidDescription.Malformed                  | The specified "Description" is not valid.                                  | The specified description is invalid. The description must be 2 to 256 characters in length. It cannot start with http:// or https://. |
| 400              | Forbidden.BillsOutstanding                    | You cannot create more RouterInterface because you have bills outstanding. | You cannot create router interfaces because you have overdue payments.                                                                 |
| 400              | LimitationExceed.InterfaceNumberOnRouter      | Total number of RouterInterfaces on a Router exceeded.                     | The quota for router interfaces has been reached.                                                                                      |
| 400              | Forbidden.NotInRouterInterfaceCreateWhitelist | Not in router interface create whitelist.                                  | It does not exist in the whitelist of the router interface.                                                                            |

| HTTP status code | Error code                              | Error message                                                                       | Description                                                               |
|------------------|-----------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------|
| 400              | RI_CREATE_ONE_LIMIT_BY_SYNC             | Create ri only one limit by sync.                                                   | Only one router interface can be created at a time.                       |
| 400              | InvalidAccessPoint.<br>ValueNotAllowed  | The non-vbr router interface cannot have access point configured.                   | You cannot configure an access point for a router interface not on a VBR. |
| 400              | InvalidAccessPoint.<br>ValueNotAllowed  | The non-vbr opposite router interface cannot have opposite access point configured. | You cannot configure an access point for a router interface not on a VBR. |
| 400              | InvalidAccessPoint.<br>NotMatch         | The accessPoint id is not matched                                                   | The ID of the access point is invalid.                                    |
| 400              | InvalidAccessPoint.<br>NotExist         | The accessPoint not exit                                                            | The specified access point does not exist.                                |
| 400              | InvalidRouterType.<br>ValueNotSupported | The specified RouterType is not valid                                               | The specified router type is invalid.                                     |
| 400              | ForbiddenAction                         | The user dose not supported this action.                                            | You are not authorized to do this operation.                              |

[See common error codes](#)

## 9.2 DescribeRouterInterfaces

Queries one or more router interfaces in a region.

You can filter the results using the following filters. The relationship between the values of a filter is “or” . A router interface is returned so long as one filter is met. The relationship between filters is “and” . A router interface is returned only all the filters are met.

- RouterInterfaceId: The ID of the router interface.
- RouterId: The ID of the router.

- **RouterType:** The type of the router. Valid values: VRouter| VBR.
- **RouterInterfaceOwnerId:** The ID of the account to which the router interface belongs.
- **OppositeInterfaceId:** The ID of the peer router interface.
- **OppositeRouterType:** The type of the peer router interface. Valid values:VRouter | VBR.
- **OppositeRouterId:** The ID of the peer router interface.
- **OppositeInterfaceOwnerId:** The ID of the account to which the peer router interface belongs.
- **Status:** The status of the router interface.
- **Name :** The name of the router interface.

## Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter              | Type    | Required? | Example value            | Description                                                                                                        |
|------------------------|---------|-----------|--------------------------|--------------------------------------------------------------------------------------------------------------------|
| Action                 | String  | Yes       | DescribeRouterInterfaces | The value of this action. Value: DescribeRouterInterfaces                                                          |
| RegionId               | String  | Yes       | cn-hangzhou              | The ID of the region to which one or more router interfaces belongs. To query the region ID, call DescribeRegions. |
| Filter.n.Key           | String  | No        | Filter.1.status          | Filter keys. Up to five filters are supported. Value range of n : 1 to 5.                                          |
| Filter.n.Value.m       | String  | No        | Filter.1.Active          | The corresponding value of the specified filter key. Value range of m : 1 to 5.                                    |
| IncludeReservationData | Boolean | No        | false                    | Indicates whether renewal data is included.                                                                        |

| Parameter  | Type    | Required? | Example value | Description                                                                |
|------------|---------|-----------|---------------|----------------------------------------------------------------------------|
| PageNumber | Integer | No        | 0             | The number of pages to return.<br>Default value: 1 .                       |
| PageSize   | Integer | No        | 10            | The number of entries per page.<br>Maximum value: 50 . Default value: 10 . |

## Response parameters

| Parameter          | Type    | Example value                        | Description                                                                                                                                                                                                                                       |
|--------------------|---------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TotalCount         | Integer | 10                                   | The number of queried entries.                                                                                                                                                                                                                    |
| PageNumber         | Integer | 10                                   | The current page number.                                                                                                                                                                                                                          |
| PageSize           | Integer | 10                                   | The number of entries per page.                                                                                                                                                                                                                   |
| RequestId          | String  | C7F6FCBD-F9CC-4501-8EF3-CDC9577CAE45 | The ID of the request.                                                                                                                                                                                                                            |
| RouterInterfaceSet | N/A     | N/A                                  | A list of router interfaces.                                                                                                                                                                                                                      |
| └AccessPointId     | String  | ap-cn-shanghaiSZ-pd-A                | The ID of the access point.                                                                                                                                                                                                                       |
| └Bandwidth         | Integer | 10                                   | The bandwidth of the router interface.                                                                                                                                                                                                            |
| └BusinessStatus    | String  | Normal                               | The business status of the router interface.<br><ul style="list-style-type: none"> <li>Normal: normal</li> <li>FinancialLocked: locked because the router interface is overdue</li> <li>SecurityLocked: locked for security protection</li> </ul> |
| └ChargeType        | String  | PayByTraffic                         | The payment method.                                                                                                                                                                                                                               |
| └ConnectedTime     | String  | 2017-06-08T12:20:55                  | The time at which the connection was established.                                                                                                                                                                                                 |
| └CreationTime      | String  | 2017-06-08T12:20:55                  | The time at which the route table was created.                                                                                                                                                                                                    |

| Parameter                                     | Type    | Example value                | Description                                                      |
|-----------------------------------------------|---------|------------------------------|------------------------------------------------------------------|
| <code>└CrossBorder</code>                     | Boolean | false                        | Indicates whether the connection is a cross-border connection.   |
| <code>└Description</code>                     | String  | This is my router interface. | The description of the router interface.                         |
| <code>└EndTime</code>                         | String  | 2017-06-08T12:20:55          | The end time of data obtaining.                                  |
| <code>└HasReservationData</code>              | String  | false                        | Whether renewal data is obtained.                                |
| <code>└HealthCheckSourceIp</code>             | String  | 116.62.222.28                | The source IP of health check.                                   |
| <code>└HealthCheckTargetIp</code>             | String  | 116.62.222.28                | The target IP of health check.                                   |
| <code>└Name</code>                            | String  | test                         | The name of the router interface.                                |
| <code>└OppositeAccessPointId</code>           | String  | ap-cn-shanghaiSZ-pd-A        | The ID of the peer access point.                                 |
| <code>└OppositeBandwidth</code>               | Integer | 12                           | The bandwidth of the peer router interface.                      |
| <code>└OppositeInterfaceBusinessStatus</code> | String  | Normal                       | The business status of the peer router interface.                |
| <code>└OppositeInterfaceId</code>             | String  | ri-bp1itx13bwe6f2wfh3qpj     | The ID of the peer router interface.                             |
| <code>└OppositeInterfaceOwnerId</code>        | String  | 1231579085529123             | The ID of account to which the peer router interface belongs.    |
| <code>└OppositeInterfaceSpec</code>           | String  | Large                        | The specification of the peer router interface.                  |
| <code>└OppositeInterfaceStatus</code>         | String  | Normal                       | The status of the peer router interface.                         |
| <code>└OppositeRegionId</code>                | String  | cn-shanghai                  | The region where the peer router interface is located.           |
| <code>└OppositeRouterId</code>                | String  | vrt-bp1d3bxtdv68tfd7gfjkd    | The ID of the router to which the peer router interface belongs. |

| Parameter                                   | Type   | Example value             | Description                                                                                                                                                 |
|---------------------------------------------|--------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>└OppositeRouterType</code>            | String | VRouter                   | The type of the router to which the peer router interface belongs.                                                                                          |
| <code>└OppositeVpcInstanceId</code>         | String | vpc-bp1qpo0kug3a20qqe9h7v | The ID of the VPC to which the peer router interface belongs.                                                                                               |
| <code>└ReservationActiveTime</code>         | String | 2019-03-11T16:00:00Z      | The time at which the renewal takes effect.                                                                                                                 |
| <code>└ReservationBandwidth</code>          | String | 10                        | The bandwidth for the renewal.                                                                                                                              |
| <code>└ReservationInternetChargeType</code> | String | PayByBandwidth            | The payment type for the renewal.                                                                                                                           |
| <code>└ReservationOrderType</code>          | String | RENEWCHANGE               | The order type for the renewal.                                                                                                                             |
| <code>└Role</code>                          | String | InitiatingSide            | The role in a peering connection.                                                                                                                           |
| <code>└RouterId</code>                      | String | vrt-bp1d3bxtdv68tfd7gfjkd | The ID of the router to which the route entry belongs.                                                                                                      |
| <code>└RouterInterfaceId</code>             | String | ri-2zenfgfpyu3v93koa4sfo  | The ID of the router interface.                                                                                                                             |
| <code>└RouterType</code>                    | String | VRouter                   | The type of the router to which the route table belongs. Valid values: <ul style="list-style-type: none"> <li>VRouter: VRouter</li> <li>VBR: VBR</li> </ul> |
| <code>└Spec</code>                          | String | Large                     | The specification of the router interface.                                                                                                                  |
| <code>└Status</code>                        | String | active                    | The status of the router interface.                                                                                                                         |
| <code>└VpcInstanceId</code>                 | String | vpc-2ze3tq4uxhytg717x7o4d | The ID of the local VPC in the peering connection.                                                                                                          |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DescribeRouterInterfaces
&RegionId=cn-hangzhou
<CommonParameters>
```

### Response example

## · XML format

```
<? xml version =" 1 . 0 " encoding =" UTF - 8 " ?>
< DescribeRouterInterfaceResponse >
  < PageNumber > 1 </ PageNumber >
  < TotalCount > 2 </ TotalCount >
  < PageSize > 10 </ PageSize >
  < RequestId > 01818199 - 04F6 - 47F4 - 9ADF - 7CC824CF57 A4 </
RequestId >
  < RouterInterfaceSet >
    < RouterInterface >
      < ChargeType > Prepaid </ ChargeType >
      < HasReservationData > false </ HasReservationData >
      < OppositeInterfaceBusinessStatus > Normal </ OppositeIn
terfaceBusinessStatus >
      < RouterInterfaceId > ri - 2zenfgfpyu 3v93koa4sf o </
RouterInterfaceId >
      < OppositeInterfaceStatus > Deleted </ OppositeIn
terfaceStatus >
      < Spec > Small . 5 </ Spec >
      < OppositeInterfaceOwnerId > 1231579085 529123 </
OppositeInterfaceOwnerId >
      < CrossBorder > false </ CrossBorder >
      < OppositeInterfaceSpec > Negative </ OppositeIn terfaceSpe
c >
      < CreationTime > 2017 - 12 - 27T06 : 34 : 30Z </ CreationTi me
>
      < RouterType > VRouter </ RouterType >
      < Status > Inactive </ Status >
      < OppositeRouterType > VRouter </ OppositeRouterType >
      < OppositeRouterId > vrt - bp1el837xk kakub7ci0t j </
OppositeRouterId >
      < OppositeInterfaceId > ri - bp1itx13bw e6f2wfh3qp j </
OppositeInterfaceId >
      < VpcInstanceId > vpc - 2ze3tq4uxh ysg717x7o4 d </
VpcInstanceId >
      < RouterId > vrt - 2zeazning6 tbzkm5c0jj 2 </ RouterId >
      < ConnectedTime > 2017 - 12 - 27T06 : 34 : 37Z </ ConnectedT
ime >
      < OppositeRegionId > cn - hangzhou </ OppositeRe gionId >
      < BusinessStatus > Normal </ BusinessSt atus >
      < Role > Initiating Side </ Role >
      < OppositeVpcInstanceId > vpc - bp1iq3579f 26c3gpkj92 e </
OppositeVpcInstanceId >
      < EndTime > 2018 - 01 - 27T16 : 00 : 00Z </ EndTime >
    </ RouterInterface >
    < RouterInterface >
      < ChargeType > Prepaid </ ChargeType >
      < HasReservationData > false </ HasReservationData >
      < OppositeInterfaceBusinessStatus > Normal </ OppositeIn
terfaceBusinessStatus >
      < RouterInterfaceId > ri - 2zegbp7nhj 0mnwm6irnu o </
RouterInterfaceId >
      < OppositeInterfaceStatus > Deleted </ OppositeIn
terfaceStatus >
      < Spec > Small . 1 </ Spec >
      < OppositeInterfaceOwnerId > 1231579085 529123 </
OppositeInterfaceOwnerId >
      < CrossBorder > false </ CrossBorder >
      < OppositeInterfaceSpec > Negative </ OppositeIn terfaceSpe
c >
      < CreationTime > 2017 - 12 - 27T06 : 31 : 30Z </ CreationTi me
>
    </ RouterInterface >
  </ RouterInterfaceSet >
</ DescribeRouterInterfaceResponse >
```

```

    < RouterType > VRouter </ RouterType >
    < Status > Inactive </ Status >
    < OppositeRouterType > VRouter </ OppositeRouterType >
    < OppositeRouterId > vrt - bp1d3bxt dv 68tfd7gfjk d </
OppositeRouterId >
    < OppositeInterfaceId > ri - bp12dxgw8g moma1h506q f </
OppositeInterfaceId >
    < VpcInstanceId > vpc - 2ze3tq4uxh ysg717x7o4 d </
VpcInstanceId >
    < RouterId > vrt - 2zeazning6 tbzkm5c0jj 2 </ RouterId >
    < ConnectedTime > 2017 - 12 - 27T06 : 31 : 36Z </ ConnectedT
ime >
    < OppositeRegionId > cn - hangzhou </ OppositeRegionId >
    < BusinessStatus > Normal </ BusinessStatus >
    < Role > Initiating Side </ Role >
    < OppositeVpcInstanceId > vpc - bp15k6sx6f hdz2jw4daz 0 </
OppositeVpcInstanceId >
    < EndTime > 2018 - 10 - 27T16 : 00 : 00Z </ EndTime >
  </ RouterInterface >
</ RouterInterfaceSet >
< DescribeRouterInterfacesResponse >

```

• JSON format

```

{
  " PageNumber ": 1 ,
  " TotalCount ": 2 ,
  " PageSize ": 10 ,
  " RequestId ":" 01818199 - 04F6 - 47F4 - 9ADF - 7CC824CF57 A4 ",
  " RouterInterfaceSet ":{
    " RouterInterfaceType ":[
      {
        " ChargeType ":" Prepaid ",
        " HasReservationData ": false ,
        " OppositeInterfaceBusinessStatus ":" Normal ",
        " RouterInterfaceId ":" ri - 2zenfgfpyu 3v93koa4sf o ",
        " OppositeInterfaceStatus ":" Deleted ",
        " Spec ":" Small . 5 ",
        " OppositeInterfaceOwnerId ":" 1231579085 529123 ",
        " CrossBorder ": false ,
        " OppositeInterfaceSpec ":" Negative ",
        " CreationTime ":" 2017 - 12 - 27T06 : 34 : 30Z ",
        " RouterType ":" VRouter ",
        " Status ":" Inactive ",
        " OppositeRouterId ":" vrt - bp1el837xk kakub7ci0t j ",
        " OppositeRouterType ":" VRouter ",
        " OppositeInterfaceId ":" ri - bp1itx13bw e6f2wfh3qp j ",
        " ConnectedTime ":" 2017 - 12 - 27T06 : 34 : 37Z ",
        " RouterId ":" vrt - 2zeazning6 tbzkm5c0jj 2 ",
        " VpcInstanceId ":" vpc - 2ze3tq4uxh ysg717x7o4 d ",
        " BusinessStatus ":" Normal ",
        " OppositeRegionId ":" cn - hangzhou ",
        " Role ":" Initiating Side ",
        " EndTime ":" 2018 - 01 - 27T16 : 00 : 00Z ",
        " OppositeVpcInstanceId ":" vpc - bp1iq3579f 26c3gpkj92 e
      "
    ],
  },
  {
    " ChargeType ":" Prepaid ",
    " HasReservationData ": false ,
    " OppositeInterfaceBusinessStatus ":" Normal ",
    " RouterInterfaceId ":" ri - 2zegbp7nhj 0mnwm6irnu o ",
    " OppositeInterfaceStatus ":" Deleted ",

```

```

" Spec ":" Small . 1 ",
" OppositeIn terfaceOwn erId ":" 1231579085 529123 ",
" CrossBorde r ": false ,
" OppositeIn terfaceSpe c ":" Negative ",
" CreationTi me ":" 2017 - 12 - 27T06 : 31 : 30Z ",
" RouterType ":" VRouter ",
" Status ":" Inactive ",
" OppositeRo uterId ":" vrt - bp1d3bxt dv 68tfd7gfjk d ",
" OppositeRo uterType ":" VRouter ",
" OppositeIn terfaceId ":" ri - bp12dxgw8g moma1h506q f ",
" ConnectedT ime ":" 2017 - 12 - 27T06 : 31 : 36Z ",
" RouterId ":" vrt - 2zeazning6 tbzkm5c0jj 2 ",
" VpcInstanc eId ":" vpc - 2ze3tq4uxh ysg717x7o4 d ",
" BusinessSt atus ":" Normal ",
" OppositeRe gionId ":" cn - hangzhou ",
" Role ":" Initiating Side ",
" EndTime ":" 2018 - 10 - 27T16 : 00 : 00Z ",
" OppositeVp cInstanceI d ":" vpc - bp15k6sx6f hdz2jw4daz 0
"
}
]
}
}

```

#### Error codes

| HTTP status code | Error code                         | Error message                                       | Description                                |
|------------------|------------------------------------|-----------------------------------------------------|--------------------------------------------|
| 404              | InvalidFilterKey.ValueNotSupported | Specified filter key is not supported: Filter.X.key | The specified filter key is not supported. |
| 400              | InvalidParam.NotNull               | The parameter must not be null.                     | The parameter cannot be null.              |

[See common error codes](#)

## 9.3 ConnectRouterInterface

Connects the initiator router interface to the acceptor router interface.

After you call this action, the router interface status changes to Connecting. After the connection is established, the router interface status changes to Active.

Note the following before you call this action:

- Only an initiator router interface in the Idle state can initiate a connection.
- Up to one pair of interconnected router interfaces can be created between any two routers.

- If there is an overdue router interface under the account, you cannot initiate a connection.

## Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter         | Type   | Required? | Example value            | Description                                                                                        |
|-------------------|--------|-----------|--------------------------|----------------------------------------------------------------------------------------------------|
| Action            | String | Yes       | ConnectRouterInterface   | The name of this action. Value: ConnectRouterInterface                                             |
| RegionId          | String | Yes       | cn-hangzhou              | The region where the router interface is located.<br>To query the region ID, call DescribeRegions. |
| RouterInterfaceId | String | Yes       | ri-2zeo3xzyf38r4urzdvpfs | The ID of initiator router interface.                                                              |

## Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | DE77A7F3-3B74-41C0-A5BC-CAFD188C28B6 | The ID of the request. |

## Examples

### Request example

```
http(s)://vpc.aliyuncs.com/?Action=ConnectRouterInterface
&RegionId=cn-hangzhou
&RouterInterfaceId=ri-2zeo3xzyf38r4urzdvpfs
```

&< CommonParameters >

### Response example

- XML format

```
< ConnectRouterInterfaceResponse >
  < RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 </
    RequestId >
</ ConnectRouterInterfaceResponse >
```

- JSON format

```
{
  "RequestId ":" 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 "
}
```

### Error codes

| HTTP status code | Error code                        | Error message                                                  | Description                                                                                                                  |
|------------------|-----------------------------------|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|
| 404              | InvalidRouterInterfaceId.NotFound | The specified RouterInterfaceId does not exist in our record.  | The specified router interface does not exist.                                                                               |
| 400              | IncorrectRole.NotInitiatingSide   | The specified RouterInterface is not InitiatingSide.           | This router interface is not the initiator router interface. Select the initiator router interface to initiate a connection. |
| 400              | Forbidden.OnlyOneConnection       | The Specified routers have a connection already                | A peering connection already exists between the routers.                                                                     |
| 400              | Forbidden.OnlyOneConnection       | Cannot connect concurrently between same routers               | You cannot initiate another connection between the same routers.                                                             |
| 400              | Forbidden.BillsOutstanding        | You cannot use this action because you have bills outstanding. | You cannot continue with this operation because you have overdue payments.                                                   |

[See common error codes](#)

## 9.4 ActivateRouterInterface

Activates a router interface in the Inactive state.

After you call this action, the router interface changes to the Activating state. Next, after activation is completed, the router interface changes to the Active state.



**Note:**

An overdue interface cannot be activated.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter         | Type   | Required? | Example value            | Description                                                                                                                  |
|-------------------|--------|-----------|--------------------------|------------------------------------------------------------------------------------------------------------------------------|
| Action            | String | Yes       | ActivateRouterInterface  | The name of this action. Value: ActivateRouterInterface                                                                      |
| RegionId          | String | Yes       | cn-hangzhou              | The ID of the region to which the router interface to be activated belongs.<br>To query the region ID, call DescribeRegions. |
| RouterInterfaceId | String | Yes       | ri-2zeo3xzyf38r4urzdvpfs | The ID of the router interface to be activated.                                                                              |

### Response parameters

| Parameters | Type   | Example value                        | Description            |
|------------|--------|--------------------------------------|------------------------|
| RequestId  | String | 079874CD-AEC1-43E6-AC03-ADD96B6E4907 | The ID of the request. |

## Examples

### Request example

```
http ( s ):// vpc . aliyuncs . com /? Action = ActivateRo
uterInterf ace
& RegionId = cn - hangzhou
& RouterInte rfaceId = ri - 2zeo3xzyf3 8r4urzdvpf s
&< CommonPara meters >
```

### Response example

- XML format

```
< ActivateRo uterInterf aceRespons e >
  < RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 </
  RequestId >
</ ActivateRo uterInterf aceRespons e >
```

- JSON format

```
{
  " RequestId ":" 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 "
}
```

### Error codes

| HTTP status code | Error code                        | Error message                                                                     | Description                                                                  |
|------------------|-----------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound          | The specified RegionId does not exist in our records.                             | The specified region ID does not exist.                                      |
| 404              | InvalidRouterInterfaceId.NotFound | The specified RouterInterfaceId does not exist in our records.                    | The specified router interface does not exist.                               |
| 400              | IncorrectStatus                   | RouterInterface can be operated by this action only when it's status is Inactive. | This operation requires that the router interface is in the Inactive status. |
| 400              | Forbidden.FinancileLocked         | This RouterInterface is financiell locked because of bills outstanding.           | The router interface is locked due to an insufficient account balance.       |
| 400              | Forbbiden                         | The Router instance owener error                                                  | This router does not belong to your account.                                 |

[See common error codes](#)

## 9.5 DeactivateRouterInterface

Deactivates a router interface.

After you call this action, the router interface changes to the Deactivating state. After deactivation is completed, the router interface changes to the Inactive state.



### Note:

A router interface under an account with an insufficient balance cannot be deactivated.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter         | Type   | Required? | Example value             | Description                                                                                                                    |
|-------------------|--------|-----------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| Action            | String | Yes       | DeactivateRouterInterface | The name of this action. Value: DeactivateRouterInterface                                                                      |
| RegionId          | String | Yes       | cn-hangzhou               | The ID of the region to which the router interface to be deactivated belongs.<br>To query the region ID, call DescribeRegions. |
| RouterInterfaceId | String | Yes       | ri-2zeo3xzyf38r4urzdvpfs  | The ID of the router interface.                                                                                                |

## Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | BE7EB53A-99AB-4DA8-AEDE-75FA90D046A6 | The ID of the request. |

## Examples

## Request example

```
http ( s ):// vpc . aliyuncs . com /? Action = Deactivate
RouterInte rface
& RegionId = cn - hangzhou
& RouterInte rfaceId = ri - 2zeo3xzyf3 8r4urzdvpf s
&< CommonPara meters >
```

## Response example

## • XML format

```
< ActivateRo uterInterf aceRespons e >
  < RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 </
  RequestId >
</ ActivateRo uterInterf aceRespons e >
```

## • JSON format

```
{
  " RequestId ":" 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 "
}
```

## Error codes

| HTTP status code | Error code                        | Error message                                                                   | Description                                                                      |
|------------------|-----------------------------------|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------|
| 404              | InvalidRouterInterfaceId.NotFound | The specified RouterInterfaceId does not exist in our record.                   | The specified router interface does not exist.                                   |
| 400              | IncorrectStatus                   | RouterInterface can be operated by this action only when it's status is Active. | You can perform this action only if the router interface is in the Active state. |

| HTTP status code | Error code                    | Error message                                                           | Description                                                  |
|------------------|-------------------------------|-------------------------------------------------------------------------|--------------------------------------------------------------|
| 400              | Forbidden.<br>FinancileLocked | This RouterInterface is financiell locked because of bills outstanding. | The router interface is locked because your bill is overdue. |

[See common error codes](#)

## 9.6 ModifyRouterInterfaceSpec

Modifies the specification of a router interface.

After you call this action, the router interface status changes to Activating. Next, after the activation is completed, the router interface status changes to Active.



### Note:

The specification for a router interface under an account with an insufficient balance cannot be modified.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter         | Type   | Required? | Example value             | Description                                                                                               |
|-------------------|--------|-----------|---------------------------|-----------------------------------------------------------------------------------------------------------|
| Action            | String | Yes       | ModifyRouterInterfaceSpec | The name of this action. Value: ModifyRouterInterfaceSpec                                                 |
| RegionId          | String | Yes       | cn-hangzhou               | The ID of the region to which the router interface belongs. To query the region ID, call DescribeRegions. |
| RouterInterfaceId | String | Yes       | ri-2zeo3xzyf38r4urzdvpfs  | The ID of the router interface.                                                                           |

| Parameter   | Type   | Required? | Example value                       | Description                                                                                                                                                                         |
|-------------|--------|-----------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Spec        | String | Yes       | Large                               | The specification of the router interface.                                                                                                                                          |
| ClientToken | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length. |

### Response parameters

| Parameter | Type   | Example value                        | Description                                |
|-----------|--------|--------------------------------------|--------------------------------------------|
| RequestId | String | 4EC47282-1B74-4534-BD0E-403F3EE64CAF | The ID of the request.                     |
| Spec      | String | Small.1                              | The specification of the router interface. |

### Examples

#### Request example

```
http ( s ) : // vpc . aliyuncs . com / ? Action = ModifyRouterInterfaceSpec
& RegionId = cn - hangzhou
& RouterInterfaceId = ri - 2zeo3xzyf3 8r4urzdvpf s
& Spec = Large
& < CommonParameters >
```

#### Response example

##### • XML format

```
< ModifyRouterInterfaceSpecResponse >
  < RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 </
  RequestId >
  < Spec > Middle . 2 </ Spec >
</ ModifyRouterInterfaceSpecResponse >
```

##### • JSON format

```
{
  " Spec ":" Middle . 2 ",
  " RequestId ":" 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 "
```

```
}
```

### Error codes

| HTTP status code | Error code                            | Error message                                                 | Description                                    |
|------------------|---------------------------------------|---------------------------------------------------------------|------------------------------------------------|
| 400              | InvalidSpec.<br>ValudNotSupported     | The specified Spec is not supported.                          | The specified specification is not supported.  |
| 404              | InvalidRouterInterfaceId.<br>NotFound | The specified RouterInterfaceId does not exist in our record. | The specified router interface does not exist. |
| 400              | InvalidInstanceOwner.<br>Error        | The router instance owner error.                              | The router does not belong to your account.    |
| 400              | InvalidInstance.<br>StatusError       | The router instance owner error.                              | The status of the router interface is invalid. |

[See common error codes](#)

## 9.7 ModifyRouterInterfaceAttribute

Modifies the configurations of a router interface.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter | Type   | Required? | Example value                  | Description                                                                                                  |
|-----------|--------|-----------|--------------------------------|--------------------------------------------------------------------------------------------------------------|
| Action    | String | Yes       | ModifyRouterInterfaceAttribute | The name of this action. Value: ModifyRouterInterfaceAttribute                                               |
| RegionId  | String | Yes       | cn-shanghai                    | The ID of the region to which the router interface belongs.<br>To query the region ID, call DescribeRegions. |

| Parameter           | Type    | Required? | Example value             | Description                                                                                                                                                                                                                                                                                                           |
|---------------------|---------|-----------|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RouterInterfaceId   | String  | Yes       | ri-2zeo3xzyf38r4urzdpvf3s | The ID of the router interface.                                                                                                                                                                                                                                                                                       |
| DeleteHealthCheckIp | Boolean | No        | true                      | Indicates whether to delete the health check IP address configured on the router interface. Valid values: <ul style="list-style-type: none"> <li>true : Delete the health check IP.</li> <li>false (default value): Do not delete the health check IP.</li> </ul>                                                     |
| Description         | String  | No        | Router interface 1        | The description of the router interface. The description must be 2 to 256 characters in length. The description must start with a letter and cannot start with <code>http ://</code> or <code>https ://</code> .                                                                                                      |
| HealthCheckSourceIp | String  | No        | 116.62.222.28             | The source IP address used to perform health check on the physical connection. It must be an unused IP address of the local VPC. <div>  <b>Note:</b><br/>You can specify this parameter in the scenario of physical access. </div> |
| HealthCheckTargetIp | String  | No        | 116.62.222.28             | The destination IP address of health check. <div>  <b>Note:</b><br/>This parameter is required when the HealthCheckSourceIp parameter is specified. </div>                                                                         |
| Name                | String  | No        | TEST                      | The name of the router interface. The name must be 2 to 128 characters in length. It can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter and cannot start with <code>http ://</code> or <code>https ://</code> .                                           |

| Parameter                | Type   | Required? | Example value             | Description                                                                                                                  |
|--------------------------|--------|-----------|---------------------------|------------------------------------------------------------------------------------------------------------------------------|
| OppositeInterfaceId      | String | No        | ri-2zeo3xzyf38r4urzdvpfs  | The ID of the peer router interface.                                                                                         |
| OppositeInterfaceOwnerId | String | No        | 10                        | The ID of the owner of the peer router interface.                                                                            |
| OppositeRouterId         | String | No        | vrt-bp1jcg5cmxjbl9xgc58bw | The ID of the peer router.                                                                                                   |
| OppositeRouterType       | String | No        | VRouter                   | The type of the router to which the peer router interface belongs. The default value is VBR .<br>Valid values: VRouter   VBR |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 4EC47282-1B74-4534-BD0E-403F3EE64CAF | The ID of the request. |

### Examples

#### Request example

```
http ( s ) : // vpc . aliyuncs . com / ? Action = ModifyRouterInterfaceAttribute
& RegionId = cn - shanghai
& RouterInterfaceId = ri - 2zeo3xzyf3 8r4urzdvpfs
& < CommonParameters >
```

#### Response example

- XML format

```
< ModifyRouterInterfaceAttribute Response >
```

```
< RequestId > 980960B0 - 2969 - 40BF - 8542 - EBB34FD358 AB </
RequestId >
</ ModifyRouteInterfaceAttribute Response >
```

- JSON format

```
{
  "RequestId ":" 980960B0 - 2969 - 40BF - 8542 - EBB34FD358 AB "
}
```

#### Error codes

| HTTP status code | Error code                                  | Error message                                                          | Description                                                                                                                                              |
|------------------|---------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound                    | The specified RegionId does not exist in our records.                  | The specified region ID does not exist.                                                                                                                  |
| 404              | InvalidRouterInterfaceId.NotFound           | The specified RouterInterfaceId does not exist in our records.         | The specified router interface does not exist.                                                                                                           |
| 400              | Forbidden.FinancileLocked                   | This RouterInterface is financial locked because of bills outstanding. | The router interface is locked due to an insufficient account balance.                                                                                   |
| 400              | InvalidName.Malformd                        | The attribute name is illegal.                                         | The name format is invalid.                                                                                                                              |
| 400              | InvalidOppositeRouterType.ValueNotSupported | The specified OppositeRouterType is not valid.                         | The value of the OppositeRouterType parameter is invalid.                                                                                                |
| 400              | InvalidDescription.Malformed                | The Description is illegal.                                            | The format of the resource description is invalid. The description must be 2 to 256 characters in length, and it cannot start with http:// and https://. |
| 400              | Forbidden                                   | The Router instance owner error                                        | The specified router is not under your account.                                                                                                          |
| 400              | LinkRole.NotSupport                         | This linkrole is not supported                                         | This link is not supported.                                                                                                                              |

| HTTP status code | Error code                             | Error message                         | Description                       |
|------------------|----------------------------------------|---------------------------------------|-----------------------------------|
| 400              | InvalidParam<br>.ModifyRouterInterface | Modify routerinterface param invalide | The entered parameter is invalid. |

[See common error codes](#)

## 9.8 DeleteRouterInterface

Deletes a router interface.

Note the following before you delete a router interface:

- You can only delete a router interface in the Idle or Inactive state.
- Before deleting a router interface, you must delete all custom route entries pointing to it.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter         | Type   | Required? | Example value            | Description                                                                                                  |
|-------------------|--------|-----------|--------------------------|--------------------------------------------------------------------------------------------------------------|
| Action            | String | Yes       | DeleteRouterInterface    | The name of this action. Value: DeleteRouterInterface                                                        |
| RegionId          | String | Yes       | cn-shanghai              | The ID of the region to which the router interface belongs.<br>To query the region ID, call DescribeRegions. |
| RouterInterfaceId | String | Yes       | ri-2zeo3xzyf38r4urzdvpfs | The ID of the router interface.                                                                              |

| Parameter   | Type   | Required? | Example value      | Description                                                                                                                                                                         |
|-------------|--------|-----------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ClientToken | String | No        | qwefcc12123333334f | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length. |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 4EC47282-1B74-4534-BD0E-403F3EE64CAF | The ID of the request. |

### Examples

#### Request example

```
http ( s ):// vpc . aliyuncs . com /? Action = DeleteRouterInterface
& RegionId = cn - shanghai
& RouterInterfaceId = ri - 2zeo3xzyf3 8r4urzdpvf s
&< CommonParameters >
```

#### Response example

- XML format

```
< DeleteRouterInterfaceResponse >
  < RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 </
  RequestId >
</ DeleteRouterInterfaceResponse >
```

- JSON format

```
{
  "RequestId ":" 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 "
```

```
}
```

## Error codes

| HTTP status code | Error code                                               | Error message                                                                              | Description                                                                                                                                                                |
|------------------|----------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 400              | IncorrectStatus                                          | This operation would be allowed only when status of this RouterInterface is Idle/Inactive. | This operation cannot be performed because the router interface is not in the Idle or Inactive state.                                                                      |
| 400              | Dependency Violation. RouterInterfaceReferedByRouteEntry | RouterInterface cannot be deleted when it is referred by a route table entry as next hop.  | You cannot delete this router interface because a route entry is using it as the next hop. You need to delete the route entry before you can delete this router interface. |
| 404              | InvalidInstanceId. NotFound                              | The InstanceId provided does not exist in our records.                                     | The specified ECS instance does not exist. That is, the instance is not under the VPC.                                                                                     |
| 400              | InvalidRouterInterfaceChargeType. Malformed              | The prepaid routerinterface can not delete.                                                | You cannot delete a Subscription router interface.                                                                                                                         |

[See common error codes](#)

# 10 Virtual Border Router

## 10.1 CreateVirtualBorderRouter

Creates a Virtual Border Router (VBR).

If you create a VBR for your account, the VBR is in the Enabled state after being created. Next, if you create a VBR for another account, the VBR is in the Unconfirmed state after being created and confirmation by the account is required.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter            | Type   | Required? | Example value             | Description                                                                                                                                                                                                                                                                                              |
|----------------------|--------|-----------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action               | String | Yes       | CreateVirtualBorderRouter | The name of this action. Value: CreateVirtualBorderRouter                                                                                                                                                                                                                                                |
| PhysicalConnectionId | String | Yes       | pc-xxxxxxxx               | The ID of the physical connection.                                                                                                                                                                                                                                                                       |
| RegionId             | String | Yes       | cn-shanghai               | The ID of the region to which the physical connection belongs. To query the region ID, call DescribeRegions.                                                                                                                                                                                             |
| VlanId               | String | Yes       | 10                        | The VLAN ID of the VBR. Value range: 1 to 2999.<br> <b>Note:</b><br>Only the owner of the physical connection can specify this parameter. The VLAN IDs of two VBRs of the same physical connection must be different. |

| Parameter      | Type   | Required? | Example value                       | Description                                                                                                                                                                                                                                                                                    |
|----------------|--------|-----------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CircuitCode    | String | No        | longtel001                          | <p>The circuit code provided by the service provider for the physical connection.</p> <div>  <b>Note:</b><br/> Only the owner of the physical connection can specify this parameter. </div>                   |
| ClientToken    | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | <p>A client token used to guarantee the idempotence of requests.</p> <p>This parameter value is generated by the client and is guaranteed to be unique among different requests. It must be 1 to 64 ASCII characters in length.</p>                                                            |
| Description    | String | No        | The description of the VBR          | <p>The description of the VBR.</p> <p>The description must be 2 to 256 characters in length. It must start with a letter and cannot start with <code>http</code> <code>://</code> or <code>https</code> <code>://</code>.</p>                                                                  |
| LocalGatewayIp | String | No        | 116.62.222.28                       | The Alibaba Cloud-side IP address of the VBR.                                                                                                                                                                                                                                                  |
| Name           | String | No        | test                                | <p>The name of the VBR.</p> <p>The name must be 2-128 characters in length. It can contain letters, numbers, periods (.), underscores (_), and hyphens (-). It must start with a letter and cannot start with <code>http</code> <code>://</code> or <code>https</code> <code>://</code>.</p>   |
| PeerGatewayIp  | String | No        | 116.62.222.28                       | <p>The client-side IP address of the VBR.</p> <p>Only the VBR owner can specify or modify this parameter. The client-side IP address of the VBR is required when you create a VBR for the physical connection owner, and it cannot be specified when you create a VBR for another account.</p> |

| Parameter         | Type   | Required? | Example value   | Description                                                                                                                               |
|-------------------|--------|-----------|-----------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| PeeringSubnetMask | String | No        | 255.255.255.252 | The subnet mask for the Alibaba Cloud-side IP address and the client-side IP address.<br>The two IP addresses must be in the same subnet. |
| VbrOwnerId        | String | No        | 10              | The account ID of the VBR owner.<br>The default value is account ID of the current user, namely the owner of the physical connection.     |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| VbrId     | String | vbr-bp1jcg5cmxjbl9xgc58bw            | The ID of the VBR.     |
| RequestId | String | 4EC47282-1B74-4534-BD0E-403F3EE64CAF | The ID of the request. |

### Examples

#### Request example

```
http ( s ) : // vpc . aliyuncs . com / ? Action = CreateVirtualBorderRouter
& PhysicalConnectionId = pc - xxxxxxxxx
& RegionId = cn - shanghai
& VlanId = 10
& < CommonParameters >
```

#### Response example

##### • XML format

```
< CreateRouterInterfaceResponse >
  < RequestId > 980960B0 - 2969 - 40BF - 8542 - EBB34FD358 AB </
  RequestId >
    < VbrId > vbr - 2zecmmvg5g - vu8i4telkh w </ VbrId >
```

```
</ CreateRouteInterfaceResponse >
```

- JSON format

```
{
  "CreateRouteInterfaceResponse":{
    "RequestId":"980960B0 - 2969 - 40BF - 8542 - EBB34FD358 AB ",
    "VbrId":"vbr - 2zecmmvg5g vu8i4telkh w "
  }
}
```

## Error codes

| HTTP status code | Error code                             | Error message                                                                                             | Description                                           |
|------------------|----------------------------------------|-----------------------------------------------------------------------------------------------------------|-------------------------------------------------------|
| 404              | InvalidRegionId.NotFound               | The specified RegionId is not found.                                                                      | The specified region ID does not exist.               |
| 400              | InvalidPhysicalConnectionId.NotFound   | The specified PhysicalConnectionId is not found.                                                          | The physical connection ID does not exist.            |
| 400              | InvalidVlanId.Used                     | The specified VlanId has been used.                                                                       | The specified VLAN is already occupied.               |
| 400              | MissingParameter                       | The input parameter 'PhysicalConnectionId' that is mandatory for processing this request is not supplied. | The PhysicalConnectionId parameter must be specified. |
| 400              | InvalidPhysicalConnectionId.NotEnabled | The specified PhysicalConnectionId is not in Enabled state.                                               | The physical connection is not in the Enabled status. |
| 404              | InvalidVbrOwnerId.NotFound             | The specified VbrOwnerId is not valid.                                                                    | The value of the VbrOwnerId parameter is invalid.     |
| 400              | InvalidVlanId.Malformed                | The specified VlanId is not valid.                                                                        | The value of the VbrOwnerId parameter is invalid.     |
| 400              | InvalidCircuitCode.Malformed           | The specified CircuitCode is not valid.                                                                   | The specified CircuitCode is invalid.                 |

| HTTP status code | Error code                                    | Error message                                                                                          | Description                                                     |
|------------------|-----------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|
| 400              | MissingParameter                              | The input parameter 'LocalGatewayIp' that is mandatory for processing this request is not supplied.    | The LocalGatewayIp parameter is required.                       |
| 400              | InvalidLocalGatewayIp.Malformed               | The specified LocalGatewayIp is not valid.                                                             | The specified local gateway IP address is invalid.              |
| 400              | MissingParameter                              | The input parameter 'PeerGatewayIp' that is mandatory for processing this request is not supplied.     | The PeerGatewayIp parameter is required.                        |
| 400              | MissingParameter                              | The input parameter 'PeeringSubnetMask' that is mandatory for processing this request is not supplied. | The PeeringSubnetMask parameter must be specified.              |
| 400              | InvalidPeeringSubnetMask.Malformed            | The specified PeeringSubnetMask is not valid.                                                          | The specified PeeringSubnetMask parameter is invalid.           |
| 403              | Forbidden.LocalGatewayIpNotAllowedByCaller    | The caller is not allowed to specify the LocalGatewayIp parameter.                                     | You are not allowed to specify the LocalGatewayIp parameter.    |
| 403              | Forbidden.PeeringSubnetMaskNotAllowedByCaller | The caller is not allowed to specify the PeeringSubnetMask parameter.                                  | You are not allowed to specify the PeeringSubnetMask parameter. |
| 403              | Forbidden.DescriptionNotAllowedByCaller       | The caller is not allowed to specify the Description parameter.                                        | You are not allowed to specify the Description parameter.       |
| 400              | InvalidName.Malformed                         | The specified ?Name? is not valid.                                                                     | The name format is invalid.                                     |

| HTTP status code | Error code                   | Error message                                                    | Description                                                                                                                          |
|------------------|------------------------------|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|
| 400              | InvalidDescription.Malformed | The specified ?Description? is not valid.                        | The description format is invalid. The description must be 2 to 256 characters in length. It cannot start with http:// and https://. |
| 400              | QuotaExceeded.vbrPerpConn    | Virtual boarder router per PhysicalConnection quota exceed.      | The VBR quota for the physical connection is exceeded.                                                                               |
| 400              | InvalidIp.NotSameSubnet      | Local gateway ip and peer gateway ip are not in the same subnet. | The local gateway IP address and the peer gateway IP address are not in the same subnet.                                             |
| 404              | CROSS_BID.FORBIDDEN          | Create VBR across bid is illegal                                 | You cannot create a VBR for a user of another site.                                                                                  |

[See common error codes](#)

## 10.2 DeleteVirtualBorderRouter

Delete a VBR.

Note the following before deleting a VBR:

- You must delete all router interfaces on the VBR.
- You can only delete a VBR in the Unconfirmed, Enabled, or Terminated status.
- If the VBR you want to delete is under another Alibaba Cloud account, the VBR must be in the Unconfirmed status.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs. API Explorer can help reduce possible difficulty with using cloud APIs. We recommend that you use API Explorer.

## Request parameters

| Parameter   | Type   | Required? | Example value                       | Description                                                                                                                                                                |
|-------------|--------|-----------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action      | String | Yes       | DeleteVirtualBorderRouter           | The action to perform. Valid value:<br>DeleteVirtualBorderRouter                                                                                                           |
| RegionId    | String | Yes       | cn-shanghai                         | The ID of the region where the VBR is located.<br>You can obtain the region ID by calling the DescribeRegions API.                                                         |
| VbrId       | String | Yes       | vbr-bp12mw1f8k3jgygk9bmlj           | The ID of the VBR.                                                                                                                                                         |
| ClientToken | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It cannot exceed 64 ASCII characters. |

## Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | F8BF7D24-F3EB-4E23-9208-B77C6EB78E75 | The ID of the request. |

## Examples

## Request example

```
http(s)://vpc.aliyuncs.com/?Action=DeleteVirtualBorderRouter
&RegionId=cn-shanghai
&VbrId=vbr-bp12mw1f8k3jgygk9bmlj
&<CommonParameters>
```

## Response example

- XML format

```
< DeleteVirtualBorderRouterResponse >
  < RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 </
    RequestId >
</ DeleteVirtualBorderRouterResponse >
```

- JSON format

```
{
  "RequestId": "0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0"
}
```

## Error codes

| HttpCode | Error code                                  | Error message                                                          | Description                                         |
|----------|---------------------------------------------|------------------------------------------------------------------------|-----------------------------------------------------|
| 404      | InvalidVbrId.NotFound                       | The specified VirtualBorderRouter does not exist in our records.       | The specified VBR does not exist.                   |
| 400      | InvalidOperation.RouterInterfaceNotDeleted  | The specified VirtualBorderRouter still has routerInterface.           | The specified VBR has associated router interfaces. |
| 400      | InvalidOperation.OperationNotAllowedInState | The specified VirtualBorderRouter is in invalid state.                 | The status of the VBR is invalid.                   |
| 403      | Forbidden.OperationNotAllowedByUser         | The caller is not allowed to delete the specified VirtualBorderRouter. | You are not allowed to delete the VBR.              |
| 403      | Forbidden.MultiVlanRi                       | Multiple vlan router interfaces are found.                             | Multiple VLAN router interfaces exist.              |
| 400      | InvalidStatus.NotAllowed                    | The virtual border has been associated by physicalConnection.          | The VBR has associated with a physical connection.  |

[View the error codes of the product](#)

## 10.3 DescribeVirtualBorderRouters

Query the created Virtual Border Routers (VBRs).

Request parameters

| Name                   | Type    | Required | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|------------------------|---------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action                 | String  | Yes      | The action to perform. Valid value: DescribeVirtualBorderRouters                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| RegionId               | String  | Yes      | The region of the VBR.<br>You can obtain the region ID by calling the DescribeRegions API.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Filter . n . Key       | String  | No       | Filter keys. Up to five filters are supported. Valid value for n is [1,5].<br>The relationship between the values of a filter is "or". A VBR is returned as long as one filter is met.<br>The relationship between each filter is "and". A VBR is returned only when all the filters are met.<br>The following are available filter keys: <ul style="list-style-type: none"> <li>PhysicalConnectionId : The ID of the physical connection.</li> <li>VbrId : The ID of the VBR.</li> <li>Status : The status of the VBR.</li> <li>AccessPointId : The ID of the access point of the associated physical connection.</li> <li>Name : The name of the VBR.</li> </ul> |
| Filter . n . Value . m | String  | No       | The corresponding value of the specified filter key. The valid value of m is [1, 5].                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| PageNumber             | Integer | No       | The number of pages to return. The default value is 1 .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| PageSize               | Integer | No       | The number of rows per page. The maximum value is 50 and the default value is 10 .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## Response parameters

| Name                    | Type    | Description                                                                                 |
|-------------------------|---------|---------------------------------------------------------------------------------------------|
| RequestId               | String  | The ID of the request.                                                                      |
| TotalCount              | String  | The number of queried entries.                                                              |
| PageNumber              | Integer | The current page number.                                                                    |
| PageSize                | String  | The number of entries on the current page.                                                  |
| VirtualBorderRoutersSet | List    | A list of VBRs. For more information, see <a href="#">Table 10-1: VirtualBorderRouter</a> . |

Table 10-1: VirtualBorderRouter

| Name            | Type    | Description                                                                                                          |
|-----------------|---------|----------------------------------------------------------------------------------------------------------------------|
| VbrId           | String  | The ID of the VBR.                                                                                                   |
| VbrOwnerId      | String  | The ID of the VBR owner. When the VBR owner and the physical connection owner are the same, this parameter is empty. |
| CreationTime    | Integer | The time when the VBR is created.                                                                                    |
| ActivationTime  | String  | The first time when the VBR was activated.                                                                           |
| TerminationTime | String  | The last time when the VBR was terminated.                                                                           |
| RecoveryTime    | String  | The last time when the VBR recovered from the Terminated status to the Active status.                                |
| Status          | String  | The status of the VBR.                                                                                               |
| VlanId          | String  | The VLAN ID of the VBR.                                                                                              |
| CircuitCode     | String  | The circuit code provided by the carrier for the leased line.                                                        |
| RouteTableId    | String  | The ID of the route table of the VBR.                                                                                |
| VlanInterfaceId | String  | The ID of the router interface of the VBR.                                                                           |
| LocalGatewayIp  | String  | The Alibaba Cloud-side IP.                                                                                           |
| PeerGatewayIp   | String  | The client-side IP.                                                                                                  |

| Name                 | Type   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|----------------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PeeringSubnetMask    | String | The subnet mask for the Alibaba Cloud-side IP and the client-side IP.                                                                                                                                                                                                                                                                                                                                                                                                     |
| Name                 | String | The name of the VBR.                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Description          | String | The description of the VBR.                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| PhysicalConnectionId | String | The ID of the physical connection that the VBR belongs to.                                                                                                                                                                                                                                                                                                                                                                                                                |
| AccessPointId        | String | The ID of the physical connection access point.                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Status               | String | <p>The status of the physical connection:</p> <ul style="list-style-type: none"> <li>Initial : applying</li> <li>Approved : approved</li> <li>Allocating : allocating resources</li> <li>Allocated : access construction.</li> <li>Confirmed : wait for user confirmation.</li> <li>Enabled : enabled.</li> <li>Rejected : rejected.</li> <li>Canceled : cancelled.</li> <li>Allocation Failed : resource allocation failed.</li> <li>Terminated : terminated.</li> </ul> |
| BusinessStatus       | String | <p>The payment status of the physical connection:</p> <ul style="list-style-type: none"> <li>Normal : normal</li> <li>FinancialLocked : financially locked</li> <li>SecurityLocked : locked for security reasons</li> </ul>                                                                                                                                                                                                                                               |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DescribeVirtualBorderRouters
&RegionId=cn-beijing
```

## &amp; CommonParameters

## Response example

## • XML format

```

<? xml version = " 1 . 0 " encoding = " UTF - 8 " ? >
    < DescribeVirtualBorderRoutersResponse
    >
        < RequestId > AE65530E - 8436 - 4FB1 - 8217
        - DCD35712AC 89 </ RequestId >
        < PageNumber > 1 </ PageNumber >
        < VirtualBorderRouterSet >
        < VirtualBorderRouterType >
        < LocalGatewayIp > 10 . 1 . 1 . 1 </
        LocalGatewayIp >
        < PeerGatewayIp > 10 . 2 . 2 . 2 </
        PeerGatewayIp >
        < Description ></ Description >
        < PhysicalConnectionOwnerUid >
        1231579085 529123 </ PhysicalConnectionOwnerUid >
        < VlanId > 10 </ VlanId >
        < RecoveryTime ></ RecoveryTime >
        < PhysicalConnectionStatus > Enabled </
        PhysicalConnectionStatus >
        < PhysicalConnectionId > pc - 2zeoaxkq3j
        ot5p71qcnu y </ PhysicalConnectionId >
        < RouteTableId > vtb - 2ze9hmd6yo
        fwvb1dd79j 9 </ RouteTableId >
        < PeeringSubnetMask > 255 . 0 . 0 . 0 </
        PeeringSubnetMask >
        < TerminationTime ></ TerminationTime >
        < Name ></ Name >
        < CreationTime > 2018 - 03 - 06T11 : 16 :
        34Z </ CreationTime >
        < ActivationTime > 2018 - 03 - 06T11 : 16
        : 34Z </ ActivationTime >
        < CircuitCode ></ CircuitCode >
        < Status > active </ Status >
        < PhysicalConnectionBusinessStatus >
        Normal </ PhysicalConnectionBusinessStatus >
        < VlanInterfaceId > ri - 2zeum6rgu0
        586gjrocik m </ VlanInterfaceId >
        < AccessPointId > ap - cn - beijing - dx -
        A </ AccessPointId >
        < VbrId > vbr - 2zecmmvg5g vu8i4telkh w </
        VbrId >
        </ VirtualBorderRouterType >
        </ VirtualBorderRouterSet >
        < TotalCount > 1 </ TotalCount >
        < PageSize > 10 </ PageSize >
        </ DescribeVirtualBorderRoutersRe
        sponse >

```

## • JSON format

```

{
  "PageNumber": 1,
  "VirtualBorderRouterSet": {
    "VirtualBorderRouterType": [
      {
        "LocalGatewayIp": "10.1.1.1",

```

```

" PeerGatewayIp ": " 10 . 2 . 2 . 2 ",
" Description ": "",
" PhysicalConnectionOwnerId ": " 1231579085 xxxx ",
" VlanId ": 10 ,
" RecoveryTime ": "",
" PhysicalConnectionStatus ": " Enabled ",
" PhysicalConnectionId ": " pc - 2zeoaxkq3j otxxxxx ",
" RouteTableId ": " vtb - 2ze9hmd6yo fwxxxxxx ",
" PeeringSubnetMask ": " 255 . 0 . 0 . 0 ",
" TerminationTime ": "",
" Name ": "",
" CreationTime ": " 2018 - 03 - 06T11 : 16 : 34Z ",
" ActivationTime ": " 2018 - 03 - 06T11 : 16 : 34Z ",
" CircuitCode ": "",
" Status ": " active ",
" PhysicalConnectionBusinessStatus ": " Normal ",
" VlanInterfaceId ": " ri - 2zeum6rgu0 58xxxxxx ",
" AccessPointId ": " ap - cn - beijing - dx - A ",
" VbrId ": " vbr - 2zecmmvg5g vuxxxxxx "

" TotalCount ": 1 ,
" PageSize ": 10 ,
" RequestId ": " 98B24329 - ADC9 - 4725 - A5F8 - 6C1B282DA1 7D "

```

## 10.4 DescribeVirtualBorderRoutersForPhysicalConnection

Query the Virtual Border Routers created for a physical connection.

Request parameters

| Name                 | Type    | Required | Description                                                                                                |
|----------------------|---------|----------|------------------------------------------------------------------------------------------------------------|
| Action               | String  | Yes      | The action to perform. Valid value:<br>DescribeVirtualBorderRoutersForPhysicalConnection                   |
| RegionId             | String  | Yes      | The region of the physical connection.<br>You can obtain the region ID by calling the DescribeRegions API. |
| PhysicalConnectionId | String  | No       | The ID of the physical connection.                                                                         |
| PageNumber           | Integer | No       | The number of pages to return. The default value is 1 .                                                    |
| PageSize             | Integer | No       | The number of rows per page. The maximum value is 50 and the default value is 10 .                         |

Response parameters

| Name      | Type   | Description            |
|-----------|--------|------------------------|
| RequestId | String | The ID of the request. |

| Name                                        | Type    | Description                                |
|---------------------------------------------|---------|--------------------------------------------|
| TotalCount                                  | String  | The number of queried entries.             |
| PageNumber                                  | Integer | The current page number.                   |
| PageSize                                    | String  | The number of entries on the current page. |
| VirtualBorderRouterForPhysicalConnectionSet | List    | A list of VBRs.                            |

Table 10-2: VirtualBorderRouterForPhysicalConnection

| Name            | Type    | Description                                                                                                                 |
|-----------------|---------|-----------------------------------------------------------------------------------------------------------------------------|
| VbrId           | String  | The ID of the VBR.                                                                                                          |
| VbrOwnerId      | String  | The account ID of the VBR owner. This parameter is empty when the VBR owner and the physical connection owner are the same. |
| CreationTime    | Integer | The time when the VBR is created.                                                                                           |
| ActivationTime  | String  | The first time when the VBR was activated.                                                                                  |
| TerminationTime | String  | The last time when the VBR was terminated.                                                                                  |
| RecoveryTime    | String  | The last time when the VBR recovered from the Terminated status to the Active status.                                       |
| VlanId          | String  | The VLAN ID of the VBR.                                                                                                     |
| CircuitCode     | String  | The circuit code provided by the carrier for the physical connection.                                                       |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DescribeVirtualBorderRoutersForPhysicalConnection
&RegionId=cn-beijing
&PhysicalConnectionId=pc-2zeoaxkq3j-xxxxx
&CommonParameters
```

### Response example

- XML format

```
<? xml version = " 1 . 0 " encoding = " UTF - 8 " ? >
    < DescribeVirtualBorderRoutersForPhysicalConnectionResponse >
    < RequestId > 03E8CB87 - 5876 - 4034 - BBB2 - 6E0851281C 37 </
RequestId >
    < PageNumber > 1 </ PageNumber >
    < TotalCount > 2 </ TotalCount >
    < PageSize > 10 </ PageSize >
    < VirtualBorderRouterForPhysicalConnectionSet >
    < VirtualBorderRouterForPhysicalConnectionType >
    < ActivationTime > 2018 - 03 - 06T11 : 16 : 34Z </ Activation
Time >
    < CreationTime > 2018 - 03 - 06T11 : 16 : 34Z </ CreationTime >
    < CircuitCode ></ CircuitCode >
    < VlanId > 10 </ VlanId >
    < RecoveryTime ></ RecoveryTime >
    < VbrOwnerId > xx23157908 5529123 </ VbrOwnerId >
    < TerminationTime ></ TerminationTime >
    < VbrId > Vbrxxxxx - 2zecmmvg5g vu8i4telkh w </ VbrId >
    </ VirtualBorderRouterForPhysicalConnectionType >
    < VirtualBorderRouterForPhysicalConnectionType >
    < ActivationTime > 2018 - 01 - 04T13 : 34 : 18Z </ Activation
Time >
    < CreationTime > 2018 - 01 - 04T13 : 34 : 18Z </ CreationTime >
    < CircuitCode ></ CircuitCode >
    < VlanId > 100 </ VlanId >
    < RecoveryTime ></ RecoveryTime >
    < VbrOwnerId > 1231579085 529123 </ VbrOwnerId >
    < TerminationTime ></ TerminationTime >
    < VbrId > vbr - 2zee2e2cwe tx4k0tohak w </ VbrId >
    </ VirtualBorderRouterForPhysicalConnectionType >
    </ DescribeVirtualBorderRoutersForPhysicalConnectionResponse >
```

- JSON format

```
{
  "PageNumber": 1,
  "TotalCount": 2,
  "Pagesize": 10,
  "RequestId": "03E8CB87 - 5876 - 4034 - BBB2 - 6E0851281C 37",
  "VirtualBorderRouterForPhysicalConnectionSet": {
    "VirtualBorderRouterForPhysicalConnectionType": [
      {
        "ActivationTime": "2018 - 03 - 06T11 : 16 : 34Z",
        "CreationTime": "2018 - 03 - 06T11 : 16 : 34Z",
        "CircuitCode": "",
        "VlanId": 10,
        "RecoveryTime": "",
        "VbrOwnerId": "1231579085 xxxxxx5291 23",
        "TerminationTime": "",
        "VbrId": "vbr - 2zecmmvg5g vu8xxxxw"
      },
      {
        "ActivationTime": "2018 - 01 - 04T13 : 34 : 18Z"
      }
    ]
  }
}
```

```

",
    " CreationTime ": " 2018 - 01 - 04T13 : 34 : 18Z
    " PortIdentifier ": "",
    " VlanId ": 100 ,
    " RecoveryTime ": "",
    " VbrOwnerId ": " 1231579085 xxx ",
    " TerminationTime ": "",
    " VbrId ": " vbr - 2zee2e2cwe tx4k0txxxx akw "

```

## 10.5 ModifyVirtualBorderRouterAttribute

Modify the configurations of a VBR.

Request parameters

| Name           | Type   | Required | Description                                                                                                                                                                                                                                                                                                                |
|----------------|--------|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action         | String | Yes      | The action to perform. Valid value: ModifyVirtualBorderRouterAttribute                                                                                                                                                                                                                                                     |
| RegionId       | String | Yes      | The region of the VBR.<br>You can obtain the region ID by calling the DescribeRegions API.                                                                                                                                                                                                                                 |
| VbrId          | String | Yes      | The ID of the VBR.                                                                                                                                                                                                                                                                                                         |
| VlanId         | String | Yes      | The VLAN ID of the VBR. Valid value: [1, 2999].<br><br><div>  <b>Note:</b><br/>Only the owner of the physical connection can specify this parameter. The VLAN IDs of two VBRs of the same physical connection must be different. </div> |
| CircuitCode    | String | Yes      | The circuit code provided by the network operator for the physical connection.<br><br><div>  <b>Note:</b><br/>This parameter can only be specified by the owner of the physical connection. </div>                                      |
| LocalGatewayIp | String | Yes      | The Alibaba Cloud-Side IP address used as the gateway to connect to the local IDC.                                                                                                                                                                                                                                         |
| PeerGatewayIps | String | Yes      | The customer-side IP address used as the gateway to connect to VPC.                                                                                                                                                                                                                                                        |

| Name              | Type   | Required | Description                                                                                                                                                                                                                               |
|-------------------|--------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PeeringSubnetMask | String | No       | The subnet mask of the Alibaba Cloud-side IP address and the customer-side IP address. The two IP addresses must be in the same subnet.                                                                                                   |
| Name              | String | No       | The name of the VBR.<br>The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens. The name must start with an English letter, but cannot start with <code>http://</code> or <code>https://</code> . |
| Description       | String | No       | The description of the VBR.<br>The description can contain from 2 to 256 characters. The description must start with English letters, but cannot start with <code>http://</code> or <code>https://</code> .                               |

### Response parameters

| Name      | Type   | Description            |
|-----------|--------|------------------------|
| RequestId | String | The ID of the request. |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=ModifyVirtualBorderRouterOuterAttribute
&VbrId=vbr-2zee2e2cwe-tx4k0tohak-w
&Name=test
&CommonParameters
```

#### Response example

##### • XML format

```
<?xml version="1.0" encoding="utf-8"?>
    <ModifyVirtualBorderRouterOuterAttributeResponse>
        <RequestId>980960B0-2969-40BF-8542-EBB34FD358AB</RequestId>
    </ModifyVirtualBorderRouterOuterAttributeResponse>
```

##### • JSON format

```
" RequestId ": " 980960B0 - 2969 - 40BF - 8542 - EBB34FD358 AB "
```

## 10.6 TerminateVirtualBorderRouter

Terminate the Virtual Border Router (VBR).

After the API is called, the VBR status will be changed from the Enabled status to the Terminated state.



### Note:

Only the owner of the physical connection to which the VBR is connected can call the API.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs. API Explorer can help reduce possible difficulty with using cloud APIs. We recommend that you use API Explorer.

### Request parameters

| Parameter | Type   | Required? | Example value                | Description                                                                                                     |
|-----------|--------|-----------|------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Action    | String | Yes       | TerminateVirtualBorderRouter | The action to perform. Valid value: TerminateVirtualBorderRouter                                                |
| RegionId  | String | Yes       | cn-shanghai                  | The ID of the region where the VBR is located. You can obtain the region ID by calling the DescribeRegions API. |
| VbrId     | String | Yes       | vbr-bp15zckdt37pq72zvw3      | The ID of the VBR.                                                                                              |

| Parameter   | Type   | Required? | Example value                       | Description                                                                                                                                                                                                          |
|-------------|--------|-----------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ClientToken | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and is guaranteed to be unique among different requests. The maximum length is 64 ASCII characters. |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 4EC47282-1B74-4534-BD0E-403F3EE64CAF | The ID of the request. |

### Examples

#### Request example

```
http ( s ) : // vpc . aliyuncs . com / ? Action = TerminateV
irtualBorderRouter
& RegionId = cn - shanghai
& VbrId = vbr - bp15zckdt3 7pq72zvw3
& < CommonParameters >
```

#### Response example

##### • XML format

```
< TerminateV irtualBorderRouterResponse >
  < RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 </
  RequestId >
</ TerminateV irtualBorderRouterResponse >
```

##### • JSON format

```
{
  " RequestId ":" 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 "
```

```
}
```

### Error codes

| HTTP code | Error code                                  | Error message                                                             | Description                               |
|-----------|---------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------|
| 404       | InvalidVbrId.NotFound                       | The specified VirtualBorderRouter is not found.                           | The specified VBR does not exist.         |
| 400       | InvalidOperation.OperationNotAllowedInState | The specified VirtualBorderRouter is in invalid state.                    | The status of the VBR is invalid.         |
| 403       | Forbidden.OperationNotAllowedByUser         | The caller is not allowed to terminate the specified VirtualBorderRouter. | You are not allowed to terminate the VBR. |

[View the error codes of the product](#)

## 10.7 RecoverVirtualBorderRouter

Recover a terminated Virtual Border Router (VBR).

After the API is called, the VBR status will immediately change from the Terminated state to the Recovering state. Then, when the operation is completed, the status of the VBR is Enabled.

Note the following before recovering a VBR:

- Only the owner of the physical connection can call this API.
- The physical connection that the VBR connects to must be in the Enabled state.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs. API Explorer can help reduce possible difficulty with using cloud APIs. We recommend that you use API Explorer.

## Request parameters

| Parameter   | Type   | Required? | Example value                       | Description                                                                                                                                                                                                          |
|-------------|--------|-----------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action      | String | Yes       | RecoverVirtualBorderRouter          | The action to perform. Valid value:<br>RecoverVirtualBorderRouter                                                                                                                                                    |
| RegionId    | String | Yes       | cn-shanghai                         | The ID of the region where the VBR is located.<br>You can obtain the region ID by calling the DescribeRegions API.                                                                                                   |
| VbrId       | String | Yes       | vbr-bp1lhl0tai krteen80             | The ID of the VBR.                                                                                                                                                                                                   |
| ClientToken | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and is guaranteed to be unique among different requests. The maximum length is 64 ASCII characters. |

## Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 4EC47282-1B74-4534-BD0E-403F3EE64CAF | The ID of the request. |

## Examples

## Request example

```
http ( s ) : // vpc . aliyuncs . com / ? Action = RecoverVirtualBorderRouter
& RegionId = cn - shanghai
& VbrId = vbr - bp1lhl0tai krteen80
& < CommonParameters >
```

## Response example

- XML format

```
< RecoverVirtualBorderRouterResponse >
  < RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 </
    RequestId >
</ RecoverVirtualBorderRouterResponse >
```

- JSON format

```
{
  "RequestId": "0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 "
}
```

## Error codes

| HTTP code | Error code                                  | Error message                                                           | Description                                                    |
|-----------|---------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------|
| 404       | InvalidVbrId.NotFound                       | The specified VirtualBorderRouter is not found.                         | The specified VBR does not exist.                              |
| 400       | InvalidOperation.OperationNotAllowedInState | The specified VirtualBorderRouter is in invalid state                   | The current status of the VBR does not support this operation. |
| 400       | OperationFailed.VlanIdAlreadyInUse          | The specified vlanId has been used.                                     | The specified VLAN is already occupied.                        |
| 403       | Forbidden.OperationNotAllowedByUser         | The caller is not allowed to recover the specified VirtualBorderRouter. | You are not allowed to recover the VBR.                        |

[View the error codes of the product](#)

# 11 VPN Gateway

## 11.1 CreateVpnGateway

Creates a VPN Gateway.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter | Type    | Required? | Example value             | Description                                                                                          |
|-----------|---------|-----------|---------------------------|------------------------------------------------------------------------------------------------------|
| Action    | String  | Yes       | CreateVpnGateway          | The action to perform. Valid value: CreateVpnGateway                                                 |
| Bandwidth | Integer | Yes       | 5                         | The bandwidth in Mbps of the VPN Gateway. Valid values: 5   10   20   50   100                       |
| RegionId  | String  | Yes       | cn-hangzhou               | The ID of the region to which the VPN Gateway belongs. To query the region ID, call DescribeRegions. |
| VpcId     | String  | Yes       | vpc-bp1ub1yt9cvakoelj1y9c | The ID of the VPC to which the VPN Gateway belongs.                                                  |
| Autopay   | Boolean | No        | false                     | Indicates whether the bill is paid automatically. Valid values: true   false ( default )             |

| Parameter          | Type    | Required ? | Example value | Description                                                                                                                                                                                                                                                                                 |
|--------------------|---------|------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EnableIpsec        | Boolean | No         | true          | Indicates whether to enable the IPsec-VPN function. The IPsec-VPN function provides a site-to-site connection. You can create an IPsec tunnel to connect an on-premises data center to a VPC, or to connect two VPCs. Valid values:<br>true ( default )   false                             |
| EnableSsl          | Boolean | No         | true          | Indicates whether to enable the SSL-VPN function. If this function is enabled, point-to-site VPN connection is provided and customer gateway configuration is not needed. Valid values:<br>true   false ( default )                                                                         |
| InstanceChargeType | String  | No         | PREPAY        | The billing method of the VPN Gateway. Valid values:<br>·<br>· Postpay : Pay-As-You-Go billing based on the traffic.                                                                                                                                                                        |
| Name               | String  | No         | MYVPN         | The name of the VPN Gateway . The default value is the ID of the VPN Gateway.<br>The name must be 2 to 100 characters in length and contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter. It cannot start with http :// or https ://. |
| Period             | Integer | No         | 1             | The validity period of a subscription. Valid values: 1 - 9   12   24   36                                                                                                                                                                                                                   |

| Parameter      | Type    | Required? | Example value | Description                                                      |
|----------------|---------|-----------|---------------|------------------------------------------------------------------|
| SslConnections | Integer | No        | 2             | The maximum number of clients allowed to connect simultaneously. |

### Response parameters

| Parameter    | Type   | Example value                        | Description                                                     |
|--------------|--------|--------------------------------------|-----------------------------------------------------------------|
| Name         | String | myVpn                                | The name of the VPN Gateway.                                    |
| OrderId      | String | 202249400220415                      | The ID of the order. Go to the console to complete the payment. |
| RequestId    | String | 54B48E3D-DF70-471B-AA93-08E683A1B457 | The ID of the request.                                          |
| VpnGatewayId | String | vpn-bp1q8bgx4xnkm2ogj0fiu            | The ID of the VPN Gateway.                                      |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=CreateVpnGateway
&Bandwidth=5
&RegionId=cn-hangzhou
&VpcId=vpc-bp1ublyt9c-vakoeljly9-c
&Name=MYVPN
&InstanceChargeType=PREPAY
&Period=1
&AutoPay=false
&EnableIpAddress=true
&EnableSsl=true
&SslConnections=2
<CommonParameters>
```

#### Response example

##### • XML format

```
<CreateVpnGatewayResponse>
  <Name>myVpn</Name>
  <VpnGatewayId>vpn-bp1q8bgx4xnkm2ogj0fiu</VpnGatewayId>
  <RequestId>54B48E3D-DF70-471B-AA93-08E683A1B457</RequestId>
```

```
</ CreateVpnGatewayResponse >
```

- JSON format

```
{
  "CreateVpnGatewayResponse": {
    "Name": "myVpn",
    "VpnGatewayId": "vpn-bp1q8bgx4xnkm2ogj0fiu",
    "RequestId": "54B48E3D-DF70-471B-AA93-08E683A1B457"
  }
}
```

#### Error codes

| HTTP status code | Error code         | Error message                 | Description                          |
|------------------|--------------------|-------------------------------|--------------------------------------|
| 400              | Resource.QuotaFull | The quota of resource is full | The resource quota has been reached. |

[See common error codes](#)

## 11.2 DescribeVpnGateways

Queries VPN Gateways.

#### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

#### Request parameters

| Parameter      | Type   | Required? | Example value       | Description                                                                                          |
|----------------|--------|-----------|---------------------|------------------------------------------------------------------------------------------------------|
| Action         | String | Yes       | DescribeVpnGateways | The name of this action. Value: DescribeVpnGateways                                                  |
| RegionId       | String | Yes       | cn-hangzhou         | The ID of the region to which the VPN Gateway belongs. To query the region ID, call DescribeRegions. |
| BusinessStatus | String | No        | Normal              | The status of the VPN Gateway. Valid values: Normal   FinancialLocked                                |

| Parameter    | Type    | Required ? | Example value                 | Description                                                                                                                                                                                |
|--------------|---------|------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PageNumber   | Integer | No         | 1                             | The number of pages to return.<br>Default value: 1 .                                                                                                                                       |
| PageSize     | Integer | No         | 10                            | The number of rows per page.<br>Maximum value: 50 . Default value: 10 .                                                                                                                    |
| Status       | String  | No         | init                          | The status of the VPN Gateway.<br>Valid values: <ul style="list-style-type: none"> <li>• init</li> <li>• provisioning</li> <li>• active</li> <li>• updating</li> <li>• deleting</li> </ul> |
| VpcId        | String  | No         | vpc-bp1ub1yt9c<br>vakoelj1y9c | The ID of the VPC to which the VPN gateway belongs.                                                                                                                                        |
| VpnGatewayId | String  | No         | vpn-bp1q8bgx4x<br>nkm2ogj0fiu | The ID of the VPN Gateway.                                                                                                                                                                 |

#### Response parameters

| Parameter      | Type   | Example value                 | Description                                             |
|----------------|--------|-------------------------------|---------------------------------------------------------|
| VpnGateways    | N/A    | N//A                          | A list of VPN Gateways.                                 |
| └ VpnGatewayId | String | vpn-bp1q8bgx4x<br>nkm2ogj0fiu | The ID of the VPN Gateway.                              |
| └ VpcId        | String | vpc-bp1ub1yt9c<br>vakoelj1y9c | The ID of the VPC to which the VPN Gateway belongs.     |
| └ VSwitchId    | String | vsw-bp1y9ovl1c<br>u9ou4tvma0l | The ID of the VSwitch to which the VPN Gateway belongs. |
| └ InternetIp   | String | 116.62.69.xxx                 | The public IP address of the VPN Gateway.               |
| └ CreateTime   | Long   | 1515383700000                 | The time at which the VPN Gateway was created.          |

| Parameter          | Type    | Example value                        | Description                                               |
|--------------------|---------|--------------------------------------|-----------------------------------------------------------|
| └EndTime           | Long    | 1518105600000                        | The time at which the VPN Gateway is to expire.           |
| └Spec              | String  | 5M                                   | The peak bandwidth of the VPN Gateway.                    |
| └Name              | String  | test                                 | The name of the VPN Gateway.                              |
| └Description       | String  | test                                 | The description of the VPN Gateway.                       |
| └Status            | String  | active                               | The status of the VPN Gateway.                            |
| └BusinessStatus    | String  | Normal                               | The business status of the VPN Gateway.                   |
| └ChargeType        | String  | Prepay                               | The billing type.                                         |
| └IpsecVpn          | String  | enable                               | Indicates whether the IPsec-VPN function is enabled.      |
| └SslMaxConnections | Long    | 5                                    | The maximum number of SSL-VPN clients allowed to connect. |
| └SslVpn            | String  | enable                               | Indicates whether the SSL-VPN function is enabled.        |
| TotalCount         | Integer | 1                                    | The number of queries entries.                            |
| PageNumber         | Integer | 1                                    | The current page number.                                  |
| PageSize           | Integer | 10                                   | The number of entries per page.                           |
| RequestId          | String  | DF11D6F6-E35A-41C3-9B20-6FC8A901FE65 | The ID of the request.                                    |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DescribeVpnGateways
&RegionId=cn-hangzhou
&<CommonParameters>
```

### Response example

#### • XML format

```
<DescribeVpnGatewaysResponse>
```

```

< PageNumber > 1 </ PageNumber >
< TotalCount > 1 </ TotalCount >
< PageSize > 10 </ PageSize >
< VpnGateway s >
  < VpnGateway >
    < Status > active </ Status >
    < VpnGateway Id > vpn - bp1q8bgx4x nkm2ogj0fi u </
VpnGateway Id >
    < BusinessStatus > Normal </ BusinessStatus >
    < Spec > 5M </ Spec >
    < CreateTime > 1492753580 000 </ CreateTime >
    < InternetIp > 116 . 62 . 69 . xxx </ InternetIp >
    < EndTime > 1495382400 000 </ EndTime >
    < VSwitchId > vsw - bp1y9ovl1c u9ou4tvma0 l </ VSwitchId >
    < VpcId > vpc - bp1ublyt9c vakoeljly9 c </ VpcId >
  </ VpnGateway >
</ VpnGateway s >
< RequestId > DF11D6F6 - E35A - 41C3 - 9B20 - 6FC8A901FE 65 </
RequestId >
</ DescribeVpnGatewaysResponse >

```

• JSON format

```

{
  "PageNumber": 1,
  "TotalCount": 1,
  "PageSize": 10,
  "VpnGateway s": {
    "VpnGateway": [
      {
        "Status": "active",
        "VpnGateway Id": "vpn - bp1q8bgx4x nkm2ogj0fi u",
        "Spec": "5M",
        "BusinessStatus": "Normal",
        "CreateTime": "1492753580 000",
        "InternetIp": "116 . 62 . 69 . xxx",
        "EndTime": "1495382400 000",
        "VSwitchId": "vsw - bp1y9ovl1c u9ou4tvma0 l",
        "VpcId": "vpc - bp1ublyt9c vakoeljly9 c"
      }
    ]
  },
  "RequestId": "B2CD1315 - CA2B - 47B1 - 9DA5 - 8F1D69C48E 82"
}

```

## Error codes

| HTTP status code | Error code            | Error message                                                                                        | Description                                                                                         |
|------------------|-----------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 403              | Forbidden.<br>SubUser | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource . Please apply for the permission and try again. |

| HTTP status code | Error code | Error message                                             | Description                                                                               |
|------------------|------------|-----------------------------------------------------------|-------------------------------------------------------------------------------------------|
| 403              | Forbidden  | User not authorized to operate on the specified resource. | You are not authorized to operate on this resource . For more information, open a ticket. |

[See common error codes](#)

## 11.3 DescribeVpnGateway

Queries the detailed information of a VPN Gateway.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter    | Type   | Required ? | Example value             | Description                                                                                          |
|--------------|--------|------------|---------------------------|------------------------------------------------------------------------------------------------------|
| Action       | String | Yes        | DescribeVpnGateway        | The name of this action. Value: DescribeVpnGateways                                                  |
| RegionId     | String | Yes        | cn-shanghai               | The ID of the region to which the VPN Gateway belongs. To query the region ID, call DescribeRegions. |
| VpnGatewayId | String | Yes        | vpn-bp1q8bgx4xnkm2ogj0fiu | The ID of the VPC to which the VPN Gateway belongs.                                                  |

### Response parameters

| Parameter    | Type   | Example value             | Description                                         |
|--------------|--------|---------------------------|-----------------------------------------------------|
| VpnGatewayId | String | vpn-bp1q8bgx4xnkm2ogj0fiu | The ID of the VPN Gateway.                          |
| VpcId        | String | vpc-23rsxdfxxxxxxxxxxxxxx | The ID of the VPC to which the VPN Gateway belongs. |

| Parameter         | Type   | Example value                        | Description                                             |
|-------------------|--------|--------------------------------------|---------------------------------------------------------|
| VSwitchId         | String | vsw-bp1y9ovl1cu9ou4tvma0l            | The ID of the VSwitch to which the VPN Gateway belongs. |
| InternetIp        | String | 116.62.222.28                        | The public IP address.                                  |
| CreateTime        | Long   | 1495382400000                        | The time at which the VPN Gateway was created.          |
| EndTime           | Long   | 1495382400000                        | The time at which the VPN Gateway is to expire.         |
| Spec              | String | 5                                    | The specification of the VPN Gateway.                   |
| Name              | String | vpngateway name                      | The name of the VPN Gateway.                            |
| Description       | String | vpngateway description               | The description of the VPN Gateway .                    |
| Status            | String | init                                 | The status of the VPN Gateway.                          |
| BusinessStatus    | String | Normal                               | The business status of the VPN Gateway.                 |
| ChargeType        | String | PayByTraffic                         | The payment type.                                       |
| IpsecVpn          | String | enable                               | Indicates whether the IPsec-VPN function is enabled.    |
| RequestId         | String | DE77A7F3-3B74-41C0-A5BC-CAFD188C28B6 | The ID of the request.                                  |
| SslMaxConnections | Long   | 5                                    | The maximum number of concurrent SSL-VPN connections.   |
| SslVpn            | String | enable                               | Indicates whether the SSL-VPN function is enabled.      |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DescribeVpnGateway
&RegionId=cn-shanghai
&VpnGatewayId=vpn-bp1q8bgx4xnkm2ogj0fiu
&<CommonParameters>
```

### Response example

- XML format

```
< DescribeVpnGatewayResponse >
  < Status > active </ Status >
  < VpnGatewayId > vpn-bp1q8bgx4x-nkm2ogj0fi-u </ VpnGatewayId >
  < Spec > 5M </ Spec >
  < BusinessStatus > Normal </ BusinessStatus >
  < RequestId > 98C99F30-A3D2-42E1-AC75-0C882FBE92F7 </ RequestId >
  < CreateTime > 1492753580000 </ CreateTime >
  < InternetIp > 116.62.69.64 </ InternetIp >
  < EndTime > 1495382400000 </ EndTime >
  < VSwitchId > vsw-bp1y9ovllc-u9ou4tvma0-l </ VSwitchId >
  < VpcId > vpc-bp1ublyt9c-vakoelj1y9-c </ VpcId >
</ DescribeVpnGatewayResponse >
```

- JSON format

```
{
  "Status": "active",
  "VpnGatewayId": "vpn-bp1q8bgx4x-nkm2ogj0fi-u",
  "Spec": "5M",
  "BusinessStatus": "Normal",
  "RequestId": "E98A9651-7098-40C7-8F85-C818D1EBBA85",
  "CreateTime": 1492753580000,
  "InternetIp": "116.62.69.64",
  "EndTime": 1495382400000,
  "VSwitchId": "vsw-bp1y9ovllc-u9ou4tvma0-l",
  "VpcId": "vpc-bp1ublyt9c-vakoelj1y9-c"
}
```

## Error codes

| HTTP status code | Error code                               | Error message                                                                                        | Description                                                                                         |
|------------------|------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 403              | Forbidden.<br>SubUser                    | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource . Please apply for the permission and try again. |
| 403              | Forbidden                                | User not authorized to operate on the specified resource.                                            | You are not authorized to operate on this resource . For more information, open a ticket.           |
| 404              | InvalidVpnGatewayInstanceId.<br>NotFound | The specified vpn gateway instance id does not exist.                                                | The specified VPN connection does not exist . Check if the VPN link is correct.                     |

[See common error codes](#)

## 11.4 DeleteVpnGateway

Deletes a VPN Gateway.



**Note:**

You cannot delete a VPN Gateway associated with an IPsec connection.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter    | Type   | Required? | Example value                       | Description                                                                                                                                                                         |
|--------------|--------|-----------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action       | String | Yes       | DeleteVpnGateway                    | The name of this action. Value: DeleteVpnGateway                                                                                                                                    |
| RegionId     | String | Yes       | cn-hangzhou                         | The ID of the region to which VPN Gateway belongs.<br>To query the region ID, call DescribeRegions.                                                                                 |
| VpnGatewayId | String | Yes       | vpn-bp1q8bgx4xnkm2ogj0fiu           | The ID of the VPN Gateway.                                                                                                                                                          |
| ClientToken  | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length. |

### Response parameters

| Parameter | Type   | Example value                         | Description            |
|-----------|--------|---------------------------------------|------------------------|
| RequestId | String | >0ED8D006-F706-4D23-88ED-E11ED28DCAC0 | The ID of the request. |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DeleteVpnGateway
&RegionId=cn-hangzhou
&VpnGatewayId=vpn-bp1q8bgx4xnkm2ogj0fiu
&<CommonParameters>
```

### Response example

- XML format

```
<DeleteNatGatewayResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCA C0</
  RequestId>
</DeleteNatGatewayResponse>
```

- JSON format

```
{
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCA C0"
}
```

### Error codes

| HTTP status code | Error code                           | Error message                                                                                        | Description                                                                               |
|------------------|--------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| 403              | Forbidden.SubUser                    | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource.                                       |
| 403              | Forbidden                            | User not authorized to operate on the specified resource.                                            | You are not authorized to operate on this resource . For more information, open a ticket. |
| 404              | InvalidVpnGatewayInstanceId.NotFound | The specified vpn gateway instance id does not exist.                                                | The specified VPN Gateway does not exist.                                                 |
| 403              | ForbiddenRelease                     | Forbidden to release a prepaid instance within validity period                                       | You cannot release a Subscription instance before the expiration date.                    |

| HTTP status code | Error code             | Error message                         | Description                                                        |
|------------------|------------------------|---------------------------------------|--------------------------------------------------------------------|
| 400              | VpnGateway.Configuring | The specified service is configuring. | The specified service is being configured. Please try again later. |

[See common error codes](#)

## 11.5 CreateCustomerGateway

Creates a customer gateway.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter   | Type   | Required? | Example value                       | Description                                                                                                                                                                      |
|-------------|--------|-----------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action      | String | Yes       | CreateCustomerGateway               | The name of this action. Value: CreateCustomerGateway                                                                                                                            |
| IpAddress   | String | Yes       | 116.62.222.xxx                      | The IP address of the customer gateway.                                                                                                                                          |
| RegionId    | String | Yes       | cn-shanghai                         | The ID of the region to which the customer gateway belongs. To query the region ID, call DescribeRegions.                                                                        |
| ClientToken | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length. |

| Parameter   | Type   | Required? | Example value    | Description                                                                                                                                                                                                                                                                    |
|-------------|--------|-----------|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description | String | No        | customer gateway | The description of the customer gateway.<br>The description must be 2 to 256 characters in length. It must start with an English letter. It cannot start with <code>http ://</code> or <code>https ://</code> .                                                                |
| Name        | String | No        | Gateway          | The name of the customer gateway.<br>The name must be 2 to 128 characters in length and can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter. It cannot start with <code>http ://</code> or <code>https ://</code> . |

### Response parameters

| Parameter         | Type   | Example value            | Description                                         |
|-------------------|--------|--------------------------|-----------------------------------------------------|
| CustomerGatewayId | String | cgw-bp1aw0a5nff03xp1pcqc | The ID of the customer gateway.                     |
| IpAddress         | String | 100.1.1.2                | The IP address of the customer gateway.             |
| Name              | String | test                     | The name of the customer gateway.                   |
| Description       | String | test                     | The description of the customer gateway.            |
| CreateTime        | Long   | 1493363486000            | The time at which the customer gateway was created. |
| RequestId         | String | cgw-bp1aw0a5nff03xp1pcqc | The ID of the request.                              |

### Examples

#### Request example

```
https :// vpc . aliyuncs . com /? Action = CreateCustomerGateway
& IpAddress = 116 . 62 . 222 . xxx
```

```
& RegionId = cn - shanghai
&< CommonPara meters >
```

## Response example

### • XML format

```
< CreateCust omerGatewa yResponse >
  < CustomerGa tewayId > cgw - bp1aw0a5nf ff03xp1pcq c </
  CustomerGa tewayId >
  < RequestId > 185E81B1 - 3916 - 4667 - B48F - C52409B33F 2B </
  RequestId >
  < CreateTime > 1493363486 000 </ CreateTime >
  < IpAddress > 100 . 1 . 1 . 2 </ IpAddress >
</ CreateCust omerGatewa yResponse >
```

### • JSON format

```
{
  " CustomerGa tewayId ":" cgw - bp1jrawp82 av6bws9h2u t ",
  " RequestId ":" D32B3C26 - 6C6C - 4988 - 93E9 - D2A6444CE6 AE ",
  " CreateTime ": 1493363599 000 ,
  " IpAddress ":" 100 . 1 . 1 . 2 "
}
```

## Error codes

| HTTP status code | Error code                        | Error message                                                                                        | Description                                                                                         |
|------------------|-----------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 403              | Forbbiden.<br>SubUser             | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource . Please apply for the permission and try again. |
| 403              | Forbidden                         | User not authorized to operate on the specified resource.                                            | You are not authorized to operate on this resource . For more information, open a ticket.           |
| 400              | InvalidIpAddress<br>.AlreadyExist | Specified IpAddress is already exist.                                                                | The specified IP address already exists.                                                            |
| 400              | InvalidIpAddress<br>.WrongFormat  | Specified IpAddress is invalid.                                                                      | The IP address is invalid.                                                                          |
| 400              | InvalidName                       | The name is not valid                                                                                | The name format is invalid.                                                                         |
| 400              | InvalidDes<br>cription            | The description is not valid                                                                         | The description format is invalid.                                                                  |

| HTTP status code | Error code         | Error message                 | Description                          |
|------------------|--------------------|-------------------------------|--------------------------------------|
| 400              | Resource.QuotaFull | The quota of resource is full | The resource quota has been reached. |

[See common error codes](#)

## 11.6 DescribeCustomerGateways

Queries customer gateways.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter         | Type    | Required? | Example value             | Description                                                                                               |
|-------------------|---------|-----------|---------------------------|-----------------------------------------------------------------------------------------------------------|
| Action            | String  | Yes       | DescribeCustomerGateways  | The name of this action. Value: DescribeCustomerGateways                                                  |
| RegionId          | String  | Yes       | cn-shanghai               | The ID of the region to which the customer gateway belongs. To query the region ID, call DescribeRegions. |
| CustomerGatewayId | String  | No        | vpn-bp1q8bgx4xnkm2ogj0fiu | The ID of the customer gateway.                                                                           |
| PageNumber        | Integer | No        | 1                         | The number of pages to return. Default value: 1.                                                          |
| PageSize          | Integer | No        | 10                        | The number of rows per page. Maximum value: 50. Default value: 10.                                        |

## Response parameters

| Parameter           | Type    | Example value                        | Description                                         |
|---------------------|---------|--------------------------------------|-----------------------------------------------------|
| CustomerGateways    | N/A     | N/A                                  | A list of customer gateways.                        |
| ↳ CustomerGatewayId | String  | cgw-bp1pvpl9r9adju6l5nxck            | The ID of the customer gateway.                     |
| ↳ Name              | String  | test                                 | The name of the customer gateway.                   |
| ↳ Description       | String  | test                                 | The description of the customer gateway.            |
| ↳ IpAddress         | String  | 139.196.32.xxx                       | The IP address of the customer gateway.             |
| ↳ CreateTime        | Long    | 1492747187000                        | The time at which the customer gateway was created. |
| TotalCount          | Integer | 1                                    | The number of queried entries.                      |
| PageNumber          | Integer | 1                                    | The current page number.                            |
| PageSize            | Integer | 10                                   | The number of entries per page.                     |
| RequestId           | String  | 5BE01CD7-5A50-472D-AC14-CA181C5C03BE | The ID of the request.                              |

## Examples

## Request example

```
https://vpc.aliyuncs.com/?Action=DescribeCustomerGateways
&RegionId=cn-shanghai
&<CommonParameters>
```

## Response example

## • XML format

```
<DescribeCustomerGatewaysResponse>
  <PageNumber>1</PageNumber>
  <TotalCount>1</TotalCount>
  <PageSize>10</PageSize>
  <RequestId>5BE01CD7-5A50-472D-AC14-CA181C5C03BE</RequestId>
  <CustomerGateways>
    <CustomerGateway>
      <Name>test</Name>
```

```

    < CustomerGa  tewayId > cgw - bp1pvpl9r9  adju6l5nxc  k </
CustomerGa  tewayId >
    < CreateTime > 1492747187  000 </ CreateTime >
    < IPAddress > 139 . 196 . 32 . xxx </ IPAddress >
  </ CustomerGa  teway >
</ CustomerGa  teways >
</ DescribeCu stomerGate waysRespon se >

```

• JSON format

```

{
  " PageNumber ": 1 ,
  " TotalCount ": 1 ,
  " PageSize ": 10 ,
  " RequestId ":" E82612A9 - CB90 - 4D7E - B394 - 1DB7F6509B 29 ",
  " CustomerGa  teways ":{
    " CustomerGa  teway ":[
      {
        " CustomerGa  tewayId ":" cgw - bp1pvpl9r9  adju6l5nxc  k ",
        " Name ":" test ",
        " CreateTime ": 1492747187  000 ,
        " IPAddress ":" 139 . 196 . 32 . xxx "
      }
    ]
  }
}

```

## Error codes

| HTTP status code | Error code            | Error message                                                                                        | Description                                                                                         |
|------------------|-----------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 403              | Forbbiden.<br>SubUser | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource . Please apply for the permission and try again. |
| 403              | Forbidden             | User not authorized to operate on the specified resource.                                            | You are not authorized to operate on this resource . For more information, open a ticket.           |

[See common error codes](#)

## 11.7 DescribeCustomerGateway

Queries the detailed information of a customer gateway.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter         | Type   | Required? | Example value             | Description                                                                                               |
|-------------------|--------|-----------|---------------------------|-----------------------------------------------------------------------------------------------------------|
| Action            | String | Yes       | DescribeCustomerGateway   | The name of this action. Value: DescribeCustomerGateway                                                   |
| CustomerGatewayId | String | Yes       | vpn-bp1q8bgx4xnkm2ogj0fiu | The ID of the customer gateway.                                                                           |
| RegionId          | String | Yes       | cn-shanghai               | The ID of the region to which the customer gateway belongs. To query the region ID, call DescribeRegions. |

## Response parameters

| Parameter         | Type   | Example value                        | Description                                         |
|-------------------|--------|--------------------------------------|-----------------------------------------------------|
| CustomerGatewayId | String | cgw-bp1pvpl9r9adju6l5nxck            | The ID of the customer gateway.                     |
| Name              | String | test                                 | The name of the customer gateway.                   |
| Description       | String | test                                 | The description of the customer gateway.            |
| IpAddress         | String | 139.196.32.xxx                       | The IP address of the customer gateway.             |
| RequestId         | String | 99506ECB-218F-45A5-AE8E-79518451F615 | The ID of the request.                              |
| CreateTime        | Long   | 1492747187000                        | The time at which the customer gateway was created. |

## Examples

## Request example

```
https://vpc.aliyuncs.com/?Action=DescribeCustomerGateway
&CustomerGatewayId=vpn-bp1q8bgx4xnkm2ogj0fiu
&RegionId=cn-shanghai
```

&< CommonParameters >

## Response example

### • XML format

```
< DescribeCustomerGatewayResponse >
  < Name > test </ Name >
  < CustomerGatewayId > cgw - bp1pvpl9r9 adju6l5nxc k </
CustomerGatewayId >
  < CreateTime > 1492747187 000 </ CreateTime >
  < RequestId > 99506ECB - 218F - 45A5 - AE8E - 79518451F6 15 </
RequestId >
  < IpAddress > 139 . 196 . 32 . xxx </ IpAddress >
</ DescribeCustomerGatewayResponse >
```

### • JSON format

```
{
  " Name ":" test ",
  " CustomerGatewayId ":" cgw - bp1pvpl9r9 adju6l5nxc k ",
  " CreateTime ": 1492747187 000 ,
  " RequestId ":" A0457BC9 - 6C0F - 4437 - AB9D - FB2EABC1D6 A2 ",
  " IpAddress ":" 139 . 196 . 32 . xxx "
}
```

## Error codes

| HTTP status code | Error code                                    | Error message                                                                                        | Description                                                                                               |
|------------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| 403              | Forbidden.<br>SubUser                         | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource . Please apply for the permission and try again later. |
| 403              | Forbidden                                     | User not authorized to operate on the specified resource.                                            | You are not authorized to operate on this resource . For more information, open a ticket.                 |
| 404              | InvalidCustomerGatewayInstanceId.<br>NotFound | The specified customer gateway instance id does not exist.                                           | The specified instance does not exist.                                                                    |

[See common error codes](#)

## 11.8 DeleteCustomerGateway

Deletes a customer gateway.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter         | Type   | Required? | Example value                       | Description                                                                                                                                                                      |
|-------------------|--------|-----------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action            | String | Yes       | DeleteCustomerGateway               | The name of this action. Value: DeleteCustomerGateway                                                                                                                            |
| CustomerGatewayId | String | Yes       | vpn-bp1q8bgx4xnkm2ogj0fiu           | The ID of the customer gateway.                                                                                                                                                  |
| RegionId          | String | Yes       | cn-shanghai                         | The ID of the region to which the customer gateway belongs. To query the region ID, call DescribeRegions.                                                                        |
| ClientToken       | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length. |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 606998F0-B94D-48FE-8316-ACA81BB230DA | The ID of the request. |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=DeleteCustomerGateway
```

```
& CustomerGatewayId = vpn - bp1q8bgx4x - nkm2ogj0fi - u
& RegionId = cn - shanghai
&< CommonParameters >
```

### Response example

- XML format

```
< DeleteCustomerGatewayResponse >
  < RequestId > 606998F0 - B94D - 48FE - 8316 - ACA81BB230 - DA </
  RequestId >
</ DeleteCustomerGatewayResponse >
```

- JSON format

```
{
  "RequestId ":" 606998F0 - B94D - 48FE - 8316 - ACA81BB230 - DA "
}
```

### Error codes

| HTTP status code | Error code                                    | Error message                                                                                        | Description                                                                                               |
|------------------|-----------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| 403              | Forbidden.<br>SubUser                         | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource . Please apply for the permission and try again later. |
| 403              | Forbidden                                     | User not authorized to operate on the specified resource.                                            | You are not authorized to operate on this resource . For more information, open a ticket.                 |
| 404              | InvalidCustomerGatewayInstanceId.<br>NotFound | The specified customer gateway instance id does not exist.                                           | The specified instance does not exist.                                                                    |

[See common error codes](#)

## 11.9 ModifyCustomerGatewayAttribute

Modifies the name and description of a customer gateway.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter         | Type   | Required? | Example value                       | Description                                                                                                                                                                            |
|-------------------|--------|-----------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action            | String | Yes       | ModifyCustomerGatewayAttribute      | The name of this action. Value: ModifyCustomerGatewayAttribute                                                                                                                         |
| CustomerGatewayId | String | Yes       | vpn-bp1q8bgx4xnkm2ogj0fiu           | The ID of the region to which the customer gateway belongs.                                                                                                                            |
| RegionId          | String | Yes       | cn-shanghai                         | The region to which the customer gateway belongs. To query the region ID, call DescribeRegions.                                                                                        |
| ClientToken       | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length.       |
| Description       | String | No        | test                                | The description of the customer gateway. The description can must be 2 to 256 characters in length. It must start with an English letter, but cannot start with http :// or https ://. |

| Parameter | Type   | Required? | Example value | Description                                                                                                                                                                                                                                                                     |
|-----------|--------|-----------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name      | String | No        | test          | The name of the customer gateway.<br>The name must be 2 and 128 characters in length and can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter. It cannot start with <code>http ://</code> or <code>https ://</code> . |

### Response parameters

| Parameter         | Type   | Example value                        | Description                                         |
|-------------------|--------|--------------------------------------|-----------------------------------------------------|
| CustomerGatewayId | String | cgw-bp1pvpl9r9adju6l5nxck            | The ID of the customer gateway.                     |
| Name              | String | test                                 | The name of the customer gateway.                   |
| Description       | String | test                                 | The description of the customer gateway.            |
| IpAddress         | String | 139.196.32.167                       | The IP address of the customer gateway.             |
| CreateTime        | Long   | 1492747187000                        | The time at which the customer gateway was created. |
| RequestId         | String | E61293C8-AF07-4E87-A272-542680038F93 | The ID of the request.                              |

### Examples

#### Request example

```
https :// vpc . aliyuncs . com /? Action = ModifyCustomerGatewayAttribute
& CustomerGatewayId = vpn - bp1q8bgx4x nkm2ogj0fi u
& RegionId = cn - shanghai
& Name = test
&< CommonParameters >
```

#### Response example

- XML format

```
< ModifyCust omerGatewa yAttribute Response >
  < CustomerGa tewayId > cgw - bp1pvpl9r9 adju6l5nxc k </
CustomerGa tewayId >
  < RequestId > E61293C8 - AF07 - 4E87 - A272 - 542680038F 93 </
RequestId >
  < CreateTime > 1492747187 000 </ CreateTime >
  < IpAddress > 139 . 196 . 32 . 167 </ IpAddress >
</ ModifyCust omerGatewa yAttribute Response >
```

- JSON format

```
{
  " CustomerGa tewayId ":" cgw - bp1pvpl9r9 adju6l5nxc k ",
  " CreateTime ": 1492747187 000 ,
  " RequestId ":" 8AA5CE21 - 2E6A - 4530 - BDF5 - F055849476 E6 ",
  " IpAddress ":" 139 . 196 . 32 . 167 "
}
```

## Error codes

| HTTP status code | Error code                                            | Error message                                                                                        | Description                                                                                         |
|------------------|-------------------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 403              | Forbbiden.<br>SubUser                                 | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource . Please apply for the permission and try again. |
| 403              | Forbidden                                             | User not authorized to operate on the specified resource.                                            | You are not authorized to operate on this resource . For more information, open a ticket.           |
| 404              | InvalidCus<br>tomerGatew<br>ayInstanceId.<br>NotFound | The specified customer gateway instance id does not exist.                                           | The specified instance does not exist.                                                              |
| 400              | InvalidName                                           | The name is not valid                                                                                | The name format is invalid.                                                                         |
| 400              | InvalidDes<br>cription                                | The description is not valid                                                                         | The description format is invalid.                                                                  |

[See common error codes](#)

## 11.10 DescribeVpnConnections

Queries one or more IPsec connections.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter         | Type    | Required? | Example value             | Description                                                                                               |
|-------------------|---------|-----------|---------------------------|-----------------------------------------------------------------------------------------------------------|
| Action            | String  | Yes       | DescribeVpnConnections    | The name of this action. Value: DescribeVpnConnections                                                    |
| RegionId          | String  | Yes       | cn-hangzhou               | The ID of the region to which the IPsec connection belongs. To query the region ID, call DescribeRegions. |
| CustomerGatewayId | String  | No        | cgw-bp1mvj4g9kogwwcxknfuv | The ID of the customer gateway.                                                                           |
| PageNumber        | Integer | No        | 1                         | The number of pages to return. Default value: 1.                                                          |
| PageSize          | Integer | No        | 10                        | The number of rows per page. Maximum value: 50. Default value: 10.                                        |
| VpnGatewayId      | String  | No        | vpn-bp1q8bgx4xnkm2ogj0fiu | The ID of the VPN Gateway.                                                                                |

### Response parameters

| Parameter      | Type | Example value | Description                              |
|----------------|------|---------------|------------------------------------------|
| VpnConnections | N/A  | N/A           | A list of IPsec connections.             |
| └─IkeConfig    | N/A  | N/A           | Configurations of phase one negotiation. |

| Parameter                   | Type   | Example value    | Description                                                                                                                                                                           |
|-----------------------------|--------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>⌞IkeAuthAlg</code>    | String | sha1             | The IKE authentication algorithm. Both SHA-1 and MD5 are supported .                                                                                                                  |
| <code>⌞IkeEncAlg</code>     | String | aes              | The IKE encryption algorithm.                                                                                                                                                         |
| <code>⌞IkeLifetime</code>   | Long   | 86400            | The IKE lifetime.                                                                                                                                                                     |
| <code>⌞IkeMode</code>       | String | main             | The IKE mode. Both main mode and aggressive mode are supported. The main mode features high security. If NAT traversal is enabled , we recommend that you select the aggressive mode. |
| <code>⌞IkePfs</code>        | String | group2           | The DH group. Valid values:group1   group2   group5   group14   group24                                                                                                               |
| <code>⌞IkeVersion</code>    | String | ikev1            | The IKE version.                                                                                                                                                                      |
| <code>⌞LocalId</code>       | String | 116.62.69.64     | The local ID. It is the IP address of the VPN Gateway by default. Both FQDN and IP formats are supported .                                                                            |
| <code>⌞Psk</code>           | String | pgw6dy7dli8in7x5 | The pre-shared key.                                                                                                                                                                   |
| <code>⌞RemoteId</code>      | String | 139.196.32.167   | The peer ID. It is the IP address of the customer gateway by default . Both FQDN and IP formats are supported.                                                                        |
| <code>⌞IpsecConfig</code>   | N/A    | N/A              | Configurations of phase two negotiation.                                                                                                                                              |
| <code>⌞IpsecAuthAlg</code>  | String | sha1             | The IPsec authentication algorithm . Both SHA-1 and MD5 are supported.                                                                                                                |
| <code>⌞IpsecEncAlg</code>   | String | aes              | The IPsec encryption algorithm.                                                                                                                                                       |
| <code>⌞IpsecLifetime</code> | Long   | 86400            | The IPsec lifetime.                                                                                                                                                                   |
| <code>⌞IpsecPfs</code>      | String | group2           | The DH group.                                                                                                                                                                         |

| Parameter                  | Type    | Example value             | Description                                                                                                                                                                                                                                                                                                                                     |
|----------------------------|---------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>↳ VpnConnectionId</b>   | String  | vco-bp10lz7aejumd2vxoggev | The ID of the IPsec connection.                                                                                                                                                                                                                                                                                                                 |
| <b>↳ CustomerGatewayId</b> | String  | vpn-bp1q8bgx4xnkm2ogj0fiu | The ID of the customer gateway.                                                                                                                                                                                                                                                                                                                 |
| <b>↳ VpnGatewayId</b>      | String  | vpn-bp1q8bgx4xnkm2ogj0fiu | The ID of the VPN Gateway.                                                                                                                                                                                                                                                                                                                      |
| <b>↳ Name</b>              | String  | xxxxxxxxxxxxx             | The name of the IPsec connection.                                                                                                                                                                                                                                                                                                               |
| <b>↳ LocalSubnet</b>       | String  | 1.1.1.0/24,1.1.2.0/24     | The CIDR block of the VPC.                                                                                                                                                                                                                                                                                                                      |
| <b>↳ RemoteSubnet</b>      | String  | 1.1.1.0/24,1.1.2.0/24     | The CIDR block of the on-premises data center.                                                                                                                                                                                                                                                                                                  |
| <b>↳ CreateTime</b>        | Long    | 1492753817000             | The time at which the IPsec connection was created.                                                                                                                                                                                                                                                                                             |
| <b>↳ Status</b>            | String  | ipsec_sa_established      | The connection status. Valid values: <ul style="list-style-type: none"> <li>ike_sa_not_established: Phase one negotiation failed.</li> <li>ike_sa_established: Phase one negotiation succeeded.</li> <li>ipsec_sa_not_established: Phase two negotiation failed.</li> <li>ipsec_sa_established: Phase two negotiation succeeded.</li> </ul>     |
| <b>↳ EffectImmediately</b> | Boolean | true                      | Indicates whether the IPsec connection takes effect immediately. <ul style="list-style-type: none"> <li>true: Reconnection is triggered when there is a change to the network configuration.</li> <li>false: Reconnection is triggered when traffic is detected over the network.</li> </ul> A reconnection may cause intermittent connections. |

| Parameter  | Type    | Example value                        | Description                     |
|------------|---------|--------------------------------------|---------------------------------|
| TotalCount | Integer | 10                                   | The number of queried entries.  |
| PageNumber | Integer | 1                                    | The current page number.        |
| PageSize   | Integer | 10                                   | The number of entries per page. |
| RequestId  | String  | 54A4B3D0-DF4D-4C54-B8DC-5DC8DD49C939 | The ID of the request.          |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DescribeVpnConnections
&RegionId=cn-hangzhou
&<CommonParameters>
```

### Response example

#### • XML format

```
<?xml version="1.0" encoding="UTF-8"?>
<DescribeVpnConnectionsResponse>
  <PageNumber>1</PageNumber>
  <VpnConnections>
    <VpnConnection>
      <Name>vpn 连接测试</Name>
      <CustomerGatewayId>cgw-bp1pvpl9r9-adju6l5nxc-k</CustomerGatewayId>
      <RemoteSubnet>2.2.2.0/24</RemoteSubnet>
    </VpnConnection>
    <IpsecConfig>
      <IpsecLifetime>86400</IpsecLifetime>
      <IpsecAuthAlg>sha1</IpsecAuthAlg>
      <IpsecPfs>group2</IpsecPfs>
      <IpsecEncAlg>aes</IpsecEncAlg>
    </IpsecConfig>
    <EffectImmediately>true</EffectImmediately>
    <VpnGatewayId>vpn-bp1q8bgx4x-nkm2ogj0fi-u</VpnGatewayId>
    <CreateTime>1492753817000</CreateTime>
    <VpnConnectionId>vco-bp10lz7aej-umd2vxogge-v</VpnConnectionId>
    <status>ipsec_established</status>
    <LocalSubnet>1.1.1.0/24,1.1.2.0/24</LocalSubnet>
    <IkeConfig>
      <IkeEncAlg>aes</IkeEncAlg>
      <RemoteId>139.196.32.167</RemoteId>
      <IkePfs>group2</IkePfs>
      <IkeAuthAlg>sha1</IkeAuthAlg>
      <Psk>pgw6dy7dli8in7x5</Psk>
```

```

        < IkeMode > main </ IkeMode >
        < IkeLifetim e > 86400 </ IkeLifetim e >
        < IkeVersion > ikev1 </ IkeVersion >
        < LocalId > 116 . 62 . 69 . 64 </ LocalId >
    </ IkeConfig >
</ VpnConnect ion >
</ VpnConnect ions >
< TotalCount > 1 </ TotalCount >
< PageSize > 10 </ PageSize >
< RequestId > 3F96DAF2 - 8A69 - 4E84 - 824A - E16E223087 03 </
RequestId >
</ DescribeVp nConnectio nsResponse >

```

· JSON format

```

{
  " PageNumber ": 1 ,
  " VpnConnect ions ":{
    " VpnConnect ion ":[
      {
        " CustomerGa tewayId ":" cgw - bp1pvpl9r9 adju6l5nxc k ",
        " Name ":" vpn 连接测试",
        " RemoteSubn et ":" 2 . 2 . 2 . 0 / 24 ",
        " IpsecConfi g ":{
          " IpsecLifet ime ": 86400 ,
          " IpsecAuthA lg ":" sha1 ",
          " IpsecPfs ":" group2 ",
          " IpsecEncAl g ":" aes "
        },
        " VpnGateway Id ":" vpn - bp1q8bgx4x nkm2ogj0fi u ",
        " EffectImme diately ": true ,
        " status ":" ipsec_sa_e stablished ",
        " VpnConnect ionId ":" vco - bp10lz7aej umd2vxooqge v ",
        " CreateTime ": 1492753817 000 ,
        " LocalSubne t ":" 1 . 1 . 1 . 0 / 24 , 1 . 1 . 2 . 0 / 24 ",
        " IkeConfig ":{
          " IkeEncAlg ":" aes ",
          " IkePfs ":" group2 ",
          " RemoteId ":" 139 . 196 . 32 . 167 ",
          " IkeAuthAlg ":" sha1 ",
          " Psk ":" pgw6dy7d1i 8in7x5 ",
          " IkeMode ":" main ",
          " IkeLifetim e ": 86400 ,
          " IkeVersion ":" ikev1 ",
          " LocalId ":" 116 . 62 . 69 . 64 "
        }
      }
    ]
  },
  " TotalCount ": 1 ,
  " PageSize ": 10 ,
  " RequestId ":" 54A4B3D0 - DF4D - 4C54 - B8DC - 5DC8DD49C9 39 "
}

```

}

## Error codes

| HTTP status code | Error code            | Error message                                                                                        | Description                                                                                               |
|------------------|-----------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| 403              | Forbbiden.<br>SubUser | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource . Please apply for the permission and try again later. |
| 403              | Forbidden             | User not authorized to operate on the specified resource.                                            | You are not authorized to operate on this resource . For more information, open a ticket.                 |

[See common error codes](#)

## 11.11 DescribeVpnConnection

Queries the detailed information of an IPsec connection.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter       | Type   | Required? | Example value             | Description                                                                                               |
|-----------------|--------|-----------|---------------------------|-----------------------------------------------------------------------------------------------------------|
| Action          | String | Yes       | DescribeVpnConnection     | The name of this action. Value: DescribeVpnConnection                                                     |
| RegionId        | String | Yes       | cn-hangzhou               | The ID of the region to which the IPsec connection belongs. To query the region ID, call DescribeRegions. |
| VpnConnectionId | String | Yes       | vco-bp1bbi27hojx80nck9k1i | The ID of the IPsec connection.                                                                           |

## Response parameters

| Parameter         | Type    | Example value             | Description                                                                                                                                                                                                                                                                                                                                                 |
|-------------------|---------|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| VpnConnectionId   | String  | vco-bp1bbi27hojx80nck9k1i | The ID of the IPsec connection.                                                                                                                                                                                                                                                                                                                             |
| CustomerGatewayId | String  | cgw-bp1mvj4g9kogwwcxknfuv | The ID of the customer gateway.                                                                                                                                                                                                                                                                                                                             |
| VpnGatewayId      | String  | vpn-bp1q8bgx4xnkm2ogj0fiu | The ID of the VPN Gateway.                                                                                                                                                                                                                                                                                                                                  |
| Name              | String  | ipsec1                    | The name of the IPsec connection.                                                                                                                                                                                                                                                                                                                           |
| LocalSubnet       | String  | 1.1.1.0/24,1.1.2.0/24     | The CIDR block of the VPC.                                                                                                                                                                                                                                                                                                                                  |
| RemoteSubnet      | String  | 1.1.1.0/24,1.1.2.0/24     | The CIDR block of the on-premises data center.                                                                                                                                                                                                                                                                                                              |
| CreateTime        | Long    | 1492753817000             | The time when the IPsec connection was created.                                                                                                                                                                                                                                                                                                             |
| Status            | String  | ike_sa_not_established    | The connection status. Valid values: <ul style="list-style-type: none"> <li>ike_sa_not_established: The phase one negotiation failed.</li> <li>ike_sa_established: The phase one negotiation succeeded.</li> <li>ipsec_sa_not_established: The phase two negotiation failed.</li> <li>ipsec_sa_established: The phase two negotiation succeeded.</li> </ul> |
| EffectImmediately | Boolean | true                      | Indicates whether the IPsec connection takes effect immediately. <ul style="list-style-type: none"> <li>true: Reconnection is triggered when there is a change to the network configuration.</li> <li>false: Reconnection is triggered when traffic is detected over the network. Reconnection may cause intermittent disconnection.</li> </ul>             |
| IkeConfig         | N/A     | N/A                       | Configurations of phase one negotiation.                                                                                                                                                                                                                                                                                                                    |

| Parameter                    | Type   | Example value                        | Description                                                                                                                                                                                 |
|------------------------------|--------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>⌞IkeAuthAlg</code>     | String | sha1                                 | The IKE authentication algorithm. Both SHA-1 and MD5 are supported.                                                                                                                         |
| <code>⌞IkeEncAlg</code>      | String | aes                                  | The IKE encryption algorithm.                                                                                                                                                               |
| <code>⌞IkeLifetime</code>    | Long   | 86400                                | The IKE life time.                                                                                                                                                                          |
| <code>⌞IkeMode</code>        | String | main                                 | The IKE mode. Both the main mode and aggressive mode are supported.<br>The main mode features high security. If NAT traversal is enabled, we recommend that you select the aggressive mode. |
| <code>⌞IkePfs</code>         | String | group2                               | The DH group.                                                                                                                                                                               |
| <code>⌞IkeVersion</code>     | String | ikev1                                | The IKE version.                                                                                                                                                                            |
| <code>⌞LocalId</code>        | String | 116.62.69.64                         | The local ID. It is the IP address of the VPN Gateway by default. Both FQDN and IP formats are supported.                                                                                   |
| <code>⌞Psk</code>            | String | pgw6dy7dli8in7x5                     | The pre-shared key.                                                                                                                                                                         |
| <code>⌞RemoteId</code>       | String | 139.196.32.167                       | The peer ID. It is the IP address of the customer gateway by default. Both FQDN and IP formats are supported.                                                                               |
| <code>IpssecConfig</code>    | N/A    | N/A                                  | Configurations of phase two negotiation.                                                                                                                                                    |
| <code>⌞IpssecAuthAlg</code>  | String | sha1                                 | The IPsec authentication algorithm. Both SHA-1 and MD5 are supported.                                                                                                                       |
| <code>⌞IpssecEncAlg</code>   | String | aes                                  | The IPsec encryption algorithm.                                                                                                                                                             |
| <code>⌞IpssecLifetime</code> | Long   | 86400                                | The IPsec lifetime.                                                                                                                                                                         |
| <code>⌞IpssecPfs</code>      | String | group2                               | The DH group.                                                                                                                                                                               |
| <code>RequestId</code>       | String | F2310D45-BCF6-4E2E-9082-B4503844BA4C | The ID of the request.                                                                                                                                                                      |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DescribeVpnConnections
&RegionId=cn-hangzhou
&VpnConnectionId=vco-bp1bbi27hojx80nck9k1i
&<CommonParameters>
```

### Response example

#### • XML format

```
<DescribeVpnConnectionsResponse>
  <PageNumber>1</PageNumber>
  <VpnConnections>
    <VpnConnection>
      <Name>c2</Name>
      <CustomerGatewayId>cgw-bp1wl8dtz3auwlvwhgcw</CustomerGatewayId>
      <Status>ike_sa_not_established</Status>
      <RemoteSubnet>192.168.0.0/16</RemoteSubnet>
      <IpsecConfig>
        <IpsecLifetime>86400</IpsecLifetime>
        <IpsecAuthAlg>md5</IpsecAuthAlg>
        <IpsecPfs>group2</IpsecPfs>
        <IpsecEncAlg>aes</IpsecEncAlg>
      </IpsecConfig>
      <EffectImmediately>>false</EffectImmediately>
      <VpnGatewayId>vpn-bplyfrjxn4d5t63tbqq70</VpnGatewayId>
      <CreateTime>1519391420000</CreateTime>
      <VpnConnectionId>vco-bp1w3mlp23iftycvseuc2</VpnConnectionId>
      <LocalSubnet>172.16.0.0/12</LocalSubnet>
      <IkeConfig>
        <IkeEncAlg>aes</IkeEncAlg>
        <RemoteId>47.97.176.95</RemoteId>
        <IkePfs>group2</IkePfs>
        <IkeAuthAlg>sha1</IkeAuthAlg>
        <Psk>1234567</Psk>
        <IkeMode>aggressive</IkeMode>
        <IkeLifetime>86400</IkeLifetime>
        <IkeVersion>ikev1</IkeVersion>
        <LocalId>116.62.119.2</LocalId>
      </IkeConfig>
    </VpnConnection>
  </VpnConnections>
  <TotalCount>1</TotalCount>
  <PageSize>10</PageSize>
  <RequestId>7D598A10-26EF-44F2-9F47-E417842F3CEA</RequestId>
</DescribeVpnConnectionsResponse>
```

#### • JSON format

```
{
  "PageNumber": 1,
  "VpnConnections": [
    "VpnConnection": [
```

```

{
  "CustomerGatewayId": "cgw-bp1wl8dtz3-auwlvwhgcw",
  "Name": "c2",
  "Status": "ike_sa_not_established",
  "RemoteSubnet": "192.168.0.0/16",
  "IpsecConfig": {
    "IpsecLifetime": 86400,
    "IpsecAuthAlg": "md5",
    "IpsecPfs": "group2",
    "IpsecEncAlg": "aes"
  },
  "VpnGatewayId": "vpn-bp1yfrjxn4-d5t63tbqq7-0",
  "EffectImmediately": false,
  "VpnConnectionId": "vco-bp1w3m1p23-iftycvseuc-2",
  "CreateTime": 1519391420000,
  "LocalSubnet": "172.16.0.0/12",
  "IkeConfig": {
    "IkeEncAlg": "aes",
    "IkePfs": "group2",
    "RemoteId": "47.97.176.95",
    "IkeAuthAlg": "sha1",
    "Psk": "1234567",
    "IkeMode": "aggressive",
    "IkeLifetime": 86400,
    "IkeVersion": "ikev1",
    "LocalId": "116.62.119.2"
  }
},
{
  "TotalCount": 1,
  "PageSize": 10,
  "RequestId": "7D598A10-26EF-44F2-9F47-E417842F3CEA"
}

```

## Error codes

| HTTP status code | Error code                              | Error message                                                                                        | Description                                                                                               |
|------------------|-----------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| 403              | Forbidden.SubUser                       | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource . Please apply for the permission and try again later. |
| 403              | Forbidden                               | User not authorized to operate on the specified resource.                                            | You are not authorized to operate on this resource . For more information, open a ticket.                 |
| 404              | InvalidVpnConnectionInstanceId.NotFound | The specified vpn connection instance id does not exist.                                             | The specified VPN connection does not exist . Check if the VPN link is correct.                           |

[See common error codes](#)

## 11.12 DeleteVpnConnection

Deletes an IPsec connection.



### Note:

After an IPsec connection is deleted, the VPC is disconnected from the network of the on-premises data center.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter       | Type   | Required? | Example value                       | Description                                                                                                                                                                      |
|-----------------|--------|-----------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action          | String | Yes       | DeleteVpnConnection                 | The name of this action. Value: DeleteVpnConnection                                                                                                                              |
| RegionId        | String | Yes       | cn-hangzhou                         | The ID of the region to which the IPsec connection belongs. To query the region ID, call DescribeRegions.                                                                        |
| VpnConnectionId | String | Yes       | vco-bp1bbi27hojx80nck9k1i           | The ID of the IPsec connection.                                                                                                                                                  |
| ClientToken     | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length. |

## Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 606998F0-B94D-48FE-8316-ACA81BB230DA | The ID of the request. |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DeleteVpnConnection
&RegionId=cn-hangzhou
&VpnConnectionId=vco-bp1bbi27hojx80nck9k1i
&<CommonParameters>
```

### Response example

- XML format

```
<DeleteVpnConnectionResponse>
  <RequestId>606998F0-B94D-48FE-8316-ACA81BB230DA</
RequestId>
</DeleteVpnConnectionResponse>
```

- JSON format

```
{
  "RequestId": "606998F0-B94D-48FE-8316-ACA81BB230DA"
}
```

## Error codes

| HTTP status code | Error code        | Error message                                                                                        | Description                                                                                        |
|------------------|-------------------|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 403              | Forbidden.SubUser | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource. Please apply for the permission and try again. |
| 403              | Forbidden         | User not authorized to operate on the specified resource.                                            | You are not authorized to operate on this resource. For more information, open a ticket.           |

| HTTP status code | Error code                              | Error message                                            | Description                                                                         |
|------------------|-----------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------|
| 404              | InvalidVpnConnectionInstanceId.NotFound | The specified vpn connection instance id does not exist. | The specified VPN connection does not exist . Check that the VPN connection exists. |
| 400              | VpnGateway.Configuring                  | The specified service is configuring.                    | The service is being configured. Please try again later.                            |

[See common error codes](#)

## 11.13 DownloadVpnConnectionConfig

Obtains the configurations of an IPsec connection.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter       | Type    | Required ? | Example value               | Description                                                                                               |
|-----------------|---------|------------|-----------------------------|-----------------------------------------------------------------------------------------------------------|
| Action          | String  | Yes        | DownloadVpnConnectionConfig | The name of this action. Value: DownloadVpnConnectionConfig                                               |
| RegionId        | String  | Yes        | cn-shanghai                 | The ID of the region to which the IPsec connection belongs. To query the region ID, call DescribeRegions. |
| VpnConnectionId | Integer | Yes        | vco-bp1bbi27hojx80nck9k1i   | The ID of the IPsec connection.                                                                           |

## Response parameters

| Parameter           | Type   | Example value                        | Description                                                                                                                                                                          |
|---------------------|--------|--------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RequestId           | String | 0C68048B-0F70-40DA-B8AE-1B79B5CF62E3 | The ID of the request.                                                                                                                                                               |
| VpnConnectionConfig |        |                                      | IPsec connection configurations.                                                                                                                                                     |
| └─IkeConfig         |        |                                      | IKE configurations.                                                                                                                                                                  |
| └─IkeAuthAlg        | String | sha1                                 | The IKE authentication algorithm. Both SHA-1 and MD5 are supported.                                                                                                                  |
| └─IkeEncAlg         | String | aes                                  | The IKE encryption algorithm.                                                                                                                                                        |
| └─IkeLifetime       | Long   | 86400                                | The IKE lifetime.                                                                                                                                                                    |
| └─IkeMode           | String | main                                 | The IKE mode. Both main mode and aggressive mode are supported. The main mode features high security. If NAT traversal is enabled, we recommend that you select the aggressive mode. |
| └─IkePfs            | String | group2                               | The DH group.                                                                                                                                                                        |
| └─IkeVersion        | String | ikev1                                | The IKE version.                                                                                                                                                                     |
| └─LocalId           | String | 116.62.69.64                         | The local ID. By default, it is the IP address of the VPN Gateway. Both FQDN and IP formats are supported.                                                                           |
| └─Psk               | String | pgw6dy7d1i8in7x5                     | The pre-shared key.                                                                                                                                                                  |
| └─RemoteId          | String | 139.196.32.167                       | The peer ID. By default, it is the IP address of the customer gateway. Both FQDN and IP formats are supported.                                                                       |
| └─IpsecConfig       |        |                                      | The IPsec connection configurations.                                                                                                                                                 |
| └─IpsecAuthAlg      | String | sha1                                 | The IPsec authentication algorithm. Both SHA-1 and MD5 are supported.                                                                                                                |

| Parameter                  | Type   | Example value         | Description                                    |
|----------------------------|--------|-----------------------|------------------------------------------------|
| <code>IpsecEncAlg</code>   | String | aes                   | The IPsec encryption algorithm.                |
| <code>IpsecLifetime</code> | Long   | 86400                 | The IPsec lifetime.                            |
| <code>IpsecPfs</code>      | String | group2                | The DH group.                                  |
| <code>Local</code>         | String | 139.196.32.167        | The IP address of the VPN Gateway.             |
| <code>LocalSubnet</code>   | String | 1.1.1.0/24,1.1.2.0/24 | The CIDR block of the VPC.                     |
| <code>Remote</code>        | String | 116.62.69.64          | The IP address of the customer gateway.        |
| <code>RemoteSubnet</code>  | String | 1.1.1.0/24,1.1.2.0/24 | The CIDR block of the on-premises data center. |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DownloadVpnConnectionConfig
&RegionId=cn-shanghai
&VpnConnectionId=vco-bp1bbi27hojx80nck9k1i
&<CommonParameters>
```

### Response example

- XML format

```
<DownloadVpnConnectionConfigResponse>
  <RequestId>6F4A035F-7060-45D7-B9BD-719372782AF6</RequestId>
  <VpnConnectionConfig>
    <RemoteSubnet>1.1.1.0/24,1.1.2.0/24</RemoteSubnet>
    <Local>139.196.32.167</Local>
    <IpsecConfig>
      <IpsecLifetime>86400</IpsecLifetime>
      <IpsecAuthAlg>sha1</IpsecAuthAlg>
      <IpsecPfs>group2</IpsecPfs>
      <IpsecEncAlg>aes</IpsecEncAlg>
    </IpsecConfig>
    <Remote>116.62.69.64</Remote>
    <LocalSubnet>2.2.2.0/24</LocalSubnet>
    <IkeConfig>
      <IkeEncAlg>aes</IkeEncAlg>
      <IkePfs>group2</IkePfs>
      <RemoteId>116.62.69.64</RemoteId>
      <IkeAuthAlg>sha1</IkeAuthAlg>
    </IkeConfig>
  </VpnConnectionConfig>
</DownloadVpnConnectionConfigResponse>
```

```

    < Psk > pgw6dy7d1i 8in7x5 </ Psk >
    < IkeMode > main </ IkeMode >
    < IkeLifetim e > 86400 </ IkeLifetim e >
    < IkeVersion > ikev1 </ IkeVersion >
    < LocalId > 139 . 196 . 32 . 167 </ LocalId >
  </ IkeConfig >
</ VpnConnect ionConfig >
</ DownloadVp nConnectio nConfigRes ponse >

```

• JSON format

```

{
  "RequestId ":" 0C68048B - 0F70 - 40DA - B8AE - 1B79B5CF62 E3 ",
  "VpnConnect ionConfig ":{
    "RemoteSubn et ":" 1 . 1 . 1 . 0 / 24 , 1 . 1 . 2 . 0 / 24 ",
    "IpsecConfi g ":{
      "IpsecLifet ime ": 86400 ,
      "IpsecAuthA lg ":" sha1 ",
      "IpsecPfs ":" group2 ",
      "IpsecEncAl g ":" aes "
    },
    "Local ":" 139 . 196 . 32 . 167 ",
    "Remote ":" 116 . 62 . 69 . 64 ",
    "LocalSubne t ":" 2 . 2 . 2 . 0 / 24 ",
    "IkeConfig ":{
      "IkeEncAlg ":" aes ",
      "RemoteId ":" 116 . 62 . 69 . 64 ",
      "IkePfs ":" group2 ",
      "IkeAuthAlg ":" sha1 ",
      "Psk ":" pgw6dy7d1i 8in7x5 ",
      "IkeMode ":" main ",
      "IkeLifetim e ": 86400 ,
      "IkeVersion ":" ikev1 ",
      "LocalId ":" 139 . 196 . 32 . 167 "
    }
  }
}

```

## Error codes

| HTTP status code | Error code            | Error message                                                                                        | Description                                                                                         |
|------------------|-----------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 403              | Forbbiden.<br>SubUser | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource . Please apply for the permission and try again. |
| 403              | Forbidden             | User not authorized to operate on the specified resource.                                            | You are not authorized to operate on this resource . For more information, open a ticket.           |

| HTTP status code | Error code                              | Error message                                            | Description                                                                       |
|------------------|-----------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------------------|
| 404              | InvalidVpnConnectionInstanceId.NotFound | The specified vpn connection instance id does not exist. | The specified VPN connection does not exist. Check if the VPN connect is correct. |

[See common error codes](#)

## 11.14 CreateSslVpnServer

Creates an SSL-VPN server.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Type   | Required? | Example value      | Description                                                                                                                                                                                                                                                                                                                                                     |
|--------|-----------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| String | Yes       | CreateSslVpnServer | The name of this action. Value: CreateSslVpnServer                                                                                                                                                                                                                                                                                                              |
| String | Yes       | 192.168.1.0/24     | The CIDR block from which IP addresses are allocated to the virtual network interface card of the client. It is not the CIDR block of the client. When the client accesses the local end through an SSL-VPN connection, the VPN Gateway allocates an IP address in the specified CIDR block to the client. The CIDR block cannot conflict with the LocalSubnet. |

| Type                   | Required? | Example value                       | Description                                                                                                                                                                                                                                                                                                                          |
|------------------------|-----------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| String<br>LocalSubnet  | Yes       | 10.0.0.0/8                          | The CIDR block to be accessed by the client through the SSL-VPN connection.<br>The local CIDR block can be the CIDR block of the VPC, the CIDR block of the VSwitch, the CIDR block of the local data center connected to the VPC through a physical connection, or the CIDR block of an Alibaba Cloud service, such as RDS and OSS. |
| String<br>RegionId     | Yes       | cn-hangzhou                         | The ID of the region to which the VPN Gateway belongs.<br>To query the region ID, call DescribeRegions.                                                                                                                                                                                                                              |
| String<br>VpnGatewayId | Yes       | vpn-bp1hgim8by0kc9nga5lg3           | The ID of the VPN Gateway to be used.                                                                                                                                                                                                                                                                                                |
| String<br>Cipher       | No        | AES-128-CBC                         | The encryption algorithm used by the SSL-VPN server. Valid values:<br>AES - 128 - CBC (default)   AES - 192 - CBC   AES - 256 - CBC   none                                                                                                                                                                                           |
| String<br>ClientToken  | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length.                                                                                                                                                  |
| Boolean<br>Compression | No        | false                               | Indicates whether to enable compression.                                                                                                                                                                                                                                                                                             |
| String<br>SslVpnName   | No        | sslvpnname                          | The name of the SSL-VPN server.<br>The name must be 2 to 128 characters in length and can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter. It cannot start with http:// or https://.                                                                                      |

| Type           | Required? | Example value | Description                                                                                                                                                                                   |
|----------------|-----------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Integer</b> | No        | 1194          | The port used by the SSL-VPN server.<br>Default value: 1194.<br>The following ports cannot be used: 22, 2222, 22222, 9000, 9001, 9002, 7505, 80, 443, 53, 68, 123, 4510, 4560, 500, and 4500. |
| <b>String</b>  | No        | UDP           | The protocol used by the SSL-VPN server.<br>Valid values: UDP (default)   TCP                                                                                                                 |

### Response parameters

| Parameter      | Type   | Example value                        | Description                     |
|----------------|--------|--------------------------------------|---------------------------------|
| Name           | String | test                                 | The name of the SSL-VPN server. |
| RequestId      | String | E98A9651-7098-40C7-8F85-C818D1EBBA85 | The ID of the request.          |
| SslVpnServerId | String | vss-bp18q7hzj6largv4vk2fe            | The ID of the SSL-VPN server.   |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=CreateSslVpnServer
&ClientIpPool=192.168.1.0/24
&LocalSubnet=10.0.0.0/8
&RegionId=cn-hangzhou
&VpnGatewayId=vpn-xxxxxxxxxx
&Action=CreateSslVpnServer
&Cipher=AES-128-CBC
&ClientToken=aaa
&Compress=false
&Name=aaa
&OwnerAccount=
&OwnerId=
&Port=
&Proto=
&ResourceOwnerId=
&ResourceOwnerAccount=
&<CommonParameters>
```

#### Response example

- XML format

```
< CreateSslVpnServerResponse >
  < RequestId > E98A9651 - 7098 - 40C7 - 8F85 - C818D1EBBA 85 </
  RequestId >
  < SslVpnServerId > vss - bp18q7hzj6 largv4vk2f e </
  SslVpnServerId >
  < Name > test </ Name >
</ CreateSslVpnServerResponse >
```

- JSON format

```
{
  " Name ":" test ",
  " RequestId ":" E98A9651 - 7098 - 40C7 - 8F85 - C818D1EBBA 85 ",
  " SslVpnServerId ":" vss - bp18q7hzj6 largv4vk2f e "
}
```

## Error codes

| HTTP status code | Error code                                 | Error message                                                                                        | Description                                                                                         |
|------------------|--------------------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 403              | Forbidden.<br>SubUser                      | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource . Please apply for the permission and try again. |
| 403              | Forbidden                                  | User not authorized to operate on the specified resource.                                            | You are not authorized to operate on this resource . For more information, open a ticket.           |
| 400              | Resource.<br>QuotaFull                     | The quota of resource is full                                                                        | The resource quota has been reached.                                                                |
| 400              | InvalidName                                | The name is not valid                                                                                | The name format is invalid.                                                                         |
| 404              | InvalidVpn<br>GatewayInstance.<br>NotFound | The specified vpn gateway instance id does not exist.                                                | The specified VPN connection does not exist . Check that the VPN connection is correct.             |
| 400              | VpnGateway.<br>Configuring                 | The specified service is configuring.                                                                | The service is being configured. Please try again later.                                            |

| HTTP status code | Error code                 | Error message                              | Description                                                                                      |
|------------------|----------------------------|--------------------------------------------|--------------------------------------------------------------------------------------------------|
| 400              | VpnGateway.FinancialLocked | The specified service is financial locked. | The specified service has an overdue payment . Renew your account to settle the overdue payment. |

[See common error codes](#)

## 11.15 DescribeSslVpnServers

Queries SSL-VPN servers.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter  | Type    | Required ? | Example value         | Description                                                                                             |
|------------|---------|------------|-----------------------|---------------------------------------------------------------------------------------------------------|
| Action     | String  | Yes        | DescribeSslVpnServers | The name of this action. Value: DescribeSslVpnServers                                                   |
| RegionId   | String  | Yes        | cn-hangzhou           | The ID of the region to which the SSL-VPN server belongs. To query the region ID, call DescribeRegions. |
| Name       | String  | No         | test                  | The name of the SSL-VPN server.                                                                         |
| PageNumber | Integer | No         | 1                     | The number of pages to return. Default value: 1 .                                                       |
| PageSize   | Integer | No         | 10                    | The number of rows per page. Maximum value: 50 . Default value: 10 .                                    |

| Parameter      | Type   | Required? | Example value             | Description                   |
|----------------|--------|-----------|---------------------------|-------------------------------|
| SslVpnServerId | String | No        | vss-bp15j3du13gq1dgeypy1q | The ID of the SSL-VPN server. |
| VpnGatewayId   | String | No        | vpn-bp1on0xae9d771ggiomqe | The ID of the VPN Gateway.    |

## Response parameters

| Parameter       | Type    | Example value                        | Description                                      |
|-----------------|---------|--------------------------------------|--------------------------------------------------|
| PageNumber      | Integer | 1                                    | The current page number.                         |
| PageSize        | Integer | 10                                   | The number of entries per page.                  |
| RequestId       | String  | 085CA5EA-1E76-43A8-981B-E0208DECA0CB | The ID of the request.                           |
| SslVpnServers   | N/A     | N/A                                  | A list of SSL-VPN servers.                       |
| └Cipher         | String  | AES-128-CBC                          | The encryption algorithm used.                   |
| └ClientIpPool   | String  | 10.10.1.0/24                         | The IP address pool of the client.               |
| └Compress       | Boolean | false                                | Indicates whether to compress the communication. |
| └Connections    | Integer | 0                                    | The number of current connections.               |
| └CreateTime     | Long    | 1544668844000                        | The time when the SSL-VPN server was created.    |
| └InternetIp     | String  | 47.96.167.xxx                        | The public IP address.                           |
| └LocalSubnet    | String  | 192.168.0.0/24                       | The CIDR block of the client.                    |
| └MaxConnections | Integer | 5                                    | The maximum number of concurrent connections.    |
| └Name           | String  | test                                 | The name of the SSL VPN server.                  |
| └Port           | Integer | 1194                                 | The port used by the SSL-VPN server.             |

| Parameter                   | Type    | Example value             | Description                              |
|-----------------------------|---------|---------------------------|------------------------------------------|
| <code>Proto</code>          | String  | UDP                       | The protocol used by the SSL-VPN server. |
| <code>RegionId</code>       | String  | cn-hangzhou               | The region of the SSL-VPN server.        |
| <code>SslVpnServerId</code> | String  | vss-bp15j3du13gq1dgeypy1q | The ID of the SSL-VPN server.            |
| <code>VpnGatewayId</code>   | String  | vpn-bp1on0xae9d771ggiomqe | The ID of the VPN Gateway.               |
| <code>TotalCount</code>     | Integer | 1                         | The number of queried entries.           |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DescribeSslVpnServers
&RegionId=cn-hangzhou
&<CommonParameters>
```

### Response example

#### • XML format

```
<DescribeSslVpnServersResponse>
  <PageNumber>1</PageNumber>
  <TotalCount>1</TotalCount>
  <PageSize>10</PageSize>
  <SslVpnServers>
    <SslVpnServer>
      <RegionId>cn-hangzhou</RegionId>
      <SslVpnServerId>vss-bp18q7hzj6largv4vk2fe</SslVpnServerId>
      <VpnGatewayId>vpn-bp1q8bgx4xnkm2ogj0fiu</VpnGatewayId>
      <Name>test</Name>
      <ClientIpPool>10.10.10.20/24</ClientIpPool>
      <LocalSubnet>10.10.10.10/24</LocalSubnet>
      <Proto>UDP</Proto>
      <Port>1194</Port>
      <Cipher>AES-128-CBC</Cipher>
      <Compress>>true</Compress>
      <CreateTime>1492753580000</CreateTime>
      <Connections>0</Connections>
      <MaxConnections>5</MaxConnections>
      <InternetIp>47.98.xx.xx</InternetIp>
    </SslVpnServer>
  </SslVpnServers>
  <RequestId>DF11D6F6-E35A-41C3-9B20-6FC8A901FE65</RequestId>
```

```
</ DescribeSslVpnServersResponse >
```

· JSON format

```
{
  "PageNumber": "1",
  "TotalCount": "1",
  "SslVpnServers": {
    "SslVpnServer": {
      "VpnGatewayId": "vpn-bp1q8bgx4x-nkm2ogj0fi-u",
      "ClientIpPool": "10.10.10.20/24",
      "Proto": "UDP",
      "Cipher": "AES-128-CBC",
      "InternetIp": "47.98.xx.xx",
      "SslVpnServerId": "vss-bp18q7hzj6-largv4vk2f-e",
      "Name": "test",
      "Port": "1194",
      "MaxConnections": "5",
      "RegionId": "cn-hangzhou",
      "CreateTime": "1492753580000",
      "Compress": "true",
      "LocalSubnet": "10.10.10.10/24",
      "Connections": "0"
    }
  },
  "PageSize": "10",
  "RequestId": "DF11D6F6-E35A-41C3-9B20-6FC8A901FE65"
}
```

## Error codes

| HTTP status code | Error code        | Error message                                                                                        | Description                                                                                        |
|------------------|-------------------|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 403              | Forbidden.SubUser | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource. Please apply for the permission and try again. |
| 403              | Forbidden         | User not authorized to operate on the specified resource.                                            | You are not authorized to operate on this resource. Please open a ticket.                          |

[See common error codes](#)

## 11.16 DeleteSslVpnServer

Deletes an SSL-VPN server.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter      | Type   | Required? | Example value                       | Description                                                                                                                                                                      |
|----------------|--------|-----------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action         | String | Yes       | DeleteSslVpnServer                  | The name of this action. Value: DeleteSslVpnServer                                                                                                                               |
| RegionId       | String | Yes       | cn-hangzhou                         | The ID of the region to which the SSL-VPN server belongs. To query the region ID, call DescribeRegions.                                                                          |
| SslVpnServerId | String | Yes       | vss-bp18q7hzj6largv4vk2fe           | The ID of the SSL-VPN server.                                                                                                                                                    |
| ClientToken    | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length. |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 606998F0-B94D-48FE-8316-ACA81BB230DA | The ID of the request. |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=DeleteSslVpnServer&RegionId=cn-hangzhou
```

```
& SslVpnServerId = vss - bp18q7hzj6 largv4vk2f e
&< CommonParameters >
```

### Response example

- XML format

```
< DeleteSslVpnServerResponse >
  < RequestId > 606998F0 - B94D - 48FE - 8316 - ACA81BB230 DA </
  RequestId >
</ DeleteSslVpnServerResponse >
```

- JSON format

```
{
  "RequestId ":" 606998F0 - B94D - 48FE - 8316 - ACA81BB230 DA "
}
```

### Error codes

| HTTP status code | Error code                     | Error message                                                                                        | Description                                                                                         |
|------------------|--------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 403              | Forbidden.<br>SubUser          | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource . Please apply for the permission and try again. |
| 403              | Forbidden                      | User not authorized to operate on the specified resource.                                            | You are not authorized to operate on this resource . For more information, open a ticket.           |
| 400              | VpnGateway.<br>Configuring     | The specified service is configuring.                                                                | The service is being configured. Please try again later.                                            |
| 400              | VpnGateway.<br>FinancialLocked | The specified service is financial locked.                                                           | The specified service has an overdue payment. Renew your account to settle the payment.             |

[See common error codes](#)

## 11.17 ModifySslVpnServer

Modifies the configurations of an SSL-VPN server.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter      | Type   | Required? | Example value             | Description                                                                                                                                                                                                                                                                                                                                                        |
|----------------|--------|-----------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action         | String | Yes       | ModifySslVpnServer        | The name of this action. Value: ModifySslVpnServer                                                                                                                                                                                                                                                                                                                 |
| RegionId       | String | Yes       | cn-hangzhou               | The ID of the region to which the VPN Gateway belongs. To query the region ID, call DescribeRegions.                                                                                                                                                                                                                                                               |
| SslVpnServerId | String | Yes       | vss-bp18q7hzj6largv4vk2fe | The ID of the SSL-VPN server.                                                                                                                                                                                                                                                                                                                                      |
| Cipher         | String | No        | AES-128-CBC               | The encryption algorithm used by the SSL-VPN server. Valid values:<br>AES - 128 - CBC (default)<br>  AES - 192 - CBC   AES - 256 - CBC   none                                                                                                                                                                                                                      |
| ClientIpPool   | String | Yes       | 10.30.30.0/2              | The CIDR block from which IP addresses are allocated to the virtual network interface card of the client. It is not the CIDR block of the client. When the client accesses the local end through an SSL-VPN connection, the VPN Gateway allocates an IP address in the specified CIDR block to the client.<br>The CIDR block cannot conflict with the LocalSubnet. |

| Parameter   | Type    | Required? | Example value                       | Description                                                                                                                                                                                                                                                                                                                               |
|-------------|---------|-----------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ClientToken | String  | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length.                                                                                                                                                       |
| Compress    | Boolean | No        | false                               | Indicates whether to enable compression.<br>Valid values: true (default)   false                                                                                                                                                                                                                                                          |
| LocalSubnet | String  | No        | 10.20.20.0/24                       | The CIDR block to be accessed by the client through the SSL-VPN connection.<br>The local CIDR block can be the CIDR block of the VPC, the CIDR block of the VSwitch, the CIDR block of the on-premises data center connected to the VPC through a physical connection, or the CIDR block of an Alibaba Cloud service, such as RDS or OSS. |
| Name        | String  | No        | test                                | The name of the SSL-VPN server.<br>The name must be 2 to 128 characters in length and can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter. It cannot start with http:// or https://.                                                                                           |
| Port        | Integer | No        | 1194                                | The port used by the SSL-VPN server. Default value: 1194.<br>The following ports cannot be used: 22, 2222, 22222, 9000, 9001, 9002, 7505, 80, 443, 53, 68, 123, 4510, 4560, 500, and 4500.                                                                                                                                                |

| Parameter | Type   | Required<br>? | Example value | Description                              |
|-----------|--------|---------------|---------------|------------------------------------------|
| Proto     | String | No            | UDP           | The protocol used by the SSL-VPN server. |

## Response parameters

| Parameter      | Type    | Example value                        | Description                                               |
|----------------|---------|--------------------------------------|-----------------------------------------------------------|
| Cipher         | String  | AES-128-CBC                          | The encryption algorithm used.                            |
| ClientIpPool   | String  | 10.30.30.0/24                        | The IP address pool of the client.                        |
| Compress       | Boolean | false                                | Whether to compress the communication.                    |
| Connections    | Integer | 0                                    | The number of current connections.                        |
| CreateTime     | Long    | 1492753580000                        | The time at which the SSL-VPN server was created.         |
| InternetIp     | String  | 47.98.xx.xx                          | The public IP address.                                    |
| LocalSubnet    | String  | 10.20.20.0/24                        | The CIDR block of the local client.                       |
| MaxConnections | Integer | 5                                    | The maximum number of concurrent connections.             |
| Name           | String  | test                                 | The name of the SSL-VPN server.                           |
| Port           | Integer | 1194                                 | The port of the SSL-VPN server.                           |
| Proto          | String  | UDP                                  | The protocol used by the SSL-VPN server.                  |
| RegionId       | String  | cn-hangzhou                          | The ID of the region to which the SSL-VPN server belongs. |
| RequestId      | String  | DF11D6F6-E35A-41C3-9B20-6FC8A901FE65 | The ID of the request.                                    |
| SslVpnServerId | String  | vss-bp18q7hzj6largv4vk2fe            | The ID of the SSL-VPN server.                             |
| VpnGatewayId   | String  | vpn-bp1q8bgx4xnkm2ogj0fiu            | The ID of the VPN Gateway.                                |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=ModifySslVpnServer
&RegionId=cn-hangzhou
&SslVpnServerId=vss-bp18q7hzj6-largv4vk2f-e
&<CommonParameters>
```

### Response example

#### • XML format

```
<ModifySslVpnServerResponse>
  <PageNumber>1</PageNumber>
  <TotalCount>1</TotalCount>
  <PageSize>10</PageSize>
  <SslVpnServers>
    <SslVpnServer>
      <RegionId>cn-hangzhou</RegionId>
      <SslVpnServerId>vss-bp18q7hzj6-largv4vk2f-e</SslVpnServerId>
      <VpnGatewayId>vpn-bp1q8bgx4x-nkm2ogj0fi-u</VpnGatewayId>
      <Name>test</Name>
      <ClientIpPool>10.30.30.0/24</ClientIpPool>
      <LocalSubnet>10.20.20.0/24</LocalSubnet>
      <Proto>UDP</Proto>
      <Port>1194</Port>
      <Cipher>AES-128-CBC</Cipher>
      <Compress>true</Compress>
      <CreateTime>1492753580000</CreateTime>
      <Connections>0</Connections>
      <MaxConnections>5</MaxConnections>
      <InternetIp>47.98.xx.xx</InternetIp>
    </SslVpnServer>
  </SslVpnServers>
  <RequestId>DF11D6F6-E35A-41C3-9B20-6FC8A901FE65</RequestId>
</ModifySslVpnServerResponse>
```

#### • JSON format

```
{
  "PageNumber": "1",
  "TotalCount": "1",
  "SslVpnServers": {
    "SslVpnServer": {
      "VpnGatewayId": "vpn-bp1q8bgx4x-nkm2ogj0fi-u",
      "ClientIpPool": "10.30.30.0/24",
      "Proto": "UDP",
      "Cipher": "AES-128-CBC",
      "InternetIp": "47.98.xx.xx",
      "SslVpnServerId": "vss-bp18q7hzj6-largv4vk2f-e",
      "Name": "test",
      "Port": "1194",
      "MaxConnections": "5",
      "RegionId": "cn-hangzhou",
      "CreateTime": "1492753580000",
      "Compress": "true",

```

```

    " LocalSubnet " : " 10 . 20 . 20 . 0 / 24 ",
    " Connection " : " 0 "
  },
  " PageSize " : " 10 ",
  " RequestId " : " DF11D6F6 - E35A - 41C3 - 9B20 - 6FC8A901FE 65 "
}

```

## Error codes

| HTTP status code | Error code                     | Error message                                                                                        | Description                                                                                         |
|------------------|--------------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 403              | Forbidden.<br>SubUser          | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource . Please apply for the permission and try again. |
| 403              | Forbidden                      | User not authorized to operate on the specified resource.                                            | You are not authorized to operate on this resource. Please open a ticket.                           |
| 400              | InvalidName                    | The name is not valid                                                                                | The name format is invalid.                                                                         |
| 400              | VpnGateway.<br>Configuring     | The specified service is configuring.                                                                | The service is being configured. Please try again later.                                            |
| 400              | VpnGateway.<br>FinancialLocked | The specified service is financial locked.                                                           | The service is stopped due to insufficient account balance. Please renew your account first.        |

[See common error codes](#)

## 11.18 DeleteSslVpnClientCert

Deletes an SSL-VPN client certificate.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter          | Type   | Required? | Example value                       | Description                                                                                                                                                                         |
|--------------------|--------|-----------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action             | String | Yes       | DeleteSslVpnClientCert              | The name of this action. Value: DeleteSslVpnClientCert                                                                                                                              |
| RegionId           | String | Yes       | cn-hangzhou                         | The region to which the SSL-VPN client certificate belongs. To query the region ID, call DescribeRegions.                                                                           |
| SslVpnClientCertId | String | Yes       | vsc-bp1n8wcf134yl0osrcg98           | The ID of the SSL-VPN client certificate.                                                                                                                                           |
| ClientToken        | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length. |

## Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 606998F0-B94D-48FE-8316-ACA81BB230DA | The ID of the request. |

## Examples

## Request example

```
https://vpc.aliyuncs.com/?Action=DeleteSslVpnClientCert
&RegionId=cn-hangzhou
&SslVpnClientCertId=vsc-bp1n8wcf134yl0osrcg98
<公共请求参数>
```

## Response example

## · XML format

```
<DeleteSslVpnClientCertResponse>
```

```
< RequestId > 606998F0 - B94D - 48FE - 8316 - ACA81BB230 DA </
RequestId >
</ DeleteSslVpnClientCertificateResponse >
```

- JSON format

```
{
  "RequestId": "606998F0 - B94D - 48FE - 8316 - ACA81BB230 DA "
}
```

## Error codes

| HTTP status code | Error code             | Error message                                                                                        | Description                                                                                         |
|------------------|------------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 403              | Forbidden.SubUser      | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource . Please apply for the permission and try again. |
| 403              | Forbidden              | User not authorized to operate on the specified resource.                                            | You are not authorized to operate on this resource . For more information, open a ticket.           |
| 400              | VpnGateway.Configuring | The specified service is configuring.                                                                | The service is being configured. Please try again later.                                            |

[See common error codes](#)

## 11.19 ModifySslVpnClientCert

Modifies the name of an SSL-VPN client certificate.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter | Type   | Required? | Example value          | Description                                                   |
|-----------|--------|-----------|------------------------|---------------------------------------------------------------|
| Action    | String | Yes       | ModifySslVpnClientCert | The name of this action. Value: ModifySslVpnClientCertificate |

| Parameter          | Type   | Required? | Example value                       | Description                                                                                                                                                                                                                                                                            |
|--------------------|--------|-----------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RegionId           | String | Yes       | cn-hangzhou                         | The ID of the region to which the SSL-VPN client certificate belongs.<br>To query the region ID, call DescribeRegions.                                                                                                                                                                 |
| SslVpnClientCertId | String | Yes       | vsc-bp1n8wcf134yl0osrcg98           | The ID of the SSL-VPN client certificate.                                                                                                                                                                                                                                              |
| ClientToken        | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length.                                                                                                    |
| Name               | String | No        | cert2                               | The name of the SSL-VPN client certificate.<br>The name must be 2 to 128 characters in length and can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter. It cannot start with <code>http://</code> or <code>https://</code> . |

### Response parameters

| Parameter | Type   | Example value                        | Description                         |
|-----------|--------|--------------------------------------|-------------------------------------|
| Name      | String | cert2                                | The name of the client certificate. |
| RequestId | String | 606998F0-B94D-48FE-8316-ACA81BB230DA | The ID of the request.              |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=ModifySslVpnClientCertificate
```

```
& RegionId = cn - hangzhou
& SslVpnClietntCertId = vsc - bp1n8wcf13 4yl0osrcg9 8
& Name = cert2
&< CommonPara meters >
```

## Response example

### • XML format

```
< ModifySslVpnClientCertificateResponse >
  < SslVpnClientCertificateId > vsc - bp1n8wcf13 4yl0osrcg9 8 </
  SslVpnClientCertificateId >
  < Name > cert2 </ Name >
  < RequestId > 606998F0 - B94D - 48FE - 8316 - ACA81BB230 DA </
  RequestId >
</ ModifySslVpnClientCertificateResponse >
```

### • JSON format

```
{
  " Name ":" cert2 ",
  " RequestId ":" 606998F0 - B94D - 48FE - 8316 - ACA81BB230 DA ",
  " SslVpnClientCertificateId ":" vsc - bp1n8wcf13 4yl0osrcg9 8 "
}
```

## Error codes

| HTTP status code | Error code            | Error message                                                                                        | Description                                                                                 |
|------------------|-----------------------|------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|
| 403              | Forbidden.<br>SubUser | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource. Apply for the permission and try again. |
| 403              | Forbidden             | User not authorized to operate on the specified resource.                                            | You are not authorized to operate on this resource . For more information, open a ticket.   |
| 400              | InvalidName           | The name is not valid                                                                                | The name format is invalid.                                                                 |

[See common error codes](#)

## 11.20 ModifyVpnGatewayAttribute

Modifies the name and description of a VPN Gateway.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter    | Type   | Required? | Example value                       | Description                                                                                                                                                                                   |
|--------------|--------|-----------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action       | String | Yes       | ModifyVpnGatewayAttribute           | The name of this action. Value: ModifyVpnGatewayAttribute                                                                                                                                     |
| RegionId     | String | Yes       | cn-shanghai                         | The ID of the region to which the VPN Gateway belongs. To query the region ID, call DescribeRegions.                                                                                          |
| VpnGatewayId | String | Yes       | vpn-bp1q8bgx4xnkm2ogj0fiu           | The ID of the VPN Gateway.                                                                                                                                                                    |
| ClientToken  | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length.              |
| Description  | String | No        | vpn Gateway                         | The description of the VPN Gateway. The description must be 2 to 256 characters in length. It must start with a letter, but cannot start with <code>http://</code> or <code>https://</code> . |

| Parameter | Type   | Required<br>? | Example value | Description                                                                                                                                                                                                                                                                    |
|-----------|--------|---------------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name      | String | No            | myvpn         | The name of the VPN Gateway. The name must be between 2 and 128 characters in length. It can contain letters, numbers, periods (.), underscores (_), or hyphens (-). The name must start with a letter. It cannot start with <code>http ://</code> or <code>https ://</code> . |

## Response parameters

| Parameter      | Type   | Example value             | Description                                             |
|----------------|--------|---------------------------|---------------------------------------------------------|
| VpnGatewayId   | String | vpn-bp1q8bgx4xnkm2ogj0fiu | The ID of the VPN Gateway.                              |
| VpcId          | String | vpc-bp1ub1yt9cvakoelj1y9  | The ID of the VPC to which the VPN Gateway belongs.     |
| VSwitchId      | String | vsw-bp1y9ovl1cu9ou4tvma0l | The ID of the VSwitch to which the VPN Gateway belongs. |
| InternetIp     | String | 116.62.69.xxx             | The public IP address of the VPN Gateway.               |
| CreateTime     | Long   | 1492753580000             | The time at which the VPN Gateway was created.          |
| EndTime        | Long   | 1495382400000             | The time at which the VPN Gateway is to expire.         |
| Spec           | String | 5M                        | The specification of the VPN Gateway.                   |
| Name           | String | test                      | The name of the VPN Gateway.                            |
| Description    | String | test                      | The description of the VPN Gateway.                     |
| Status         | String | active                    | The status of the VPN Gateway.                          |
| BusinessStatus | String | Normal                    | The business status of the VPN Gateway.                 |
| IntranetIp     | String | 172.16.104.xxx            | The public IP address of the VPN Gateway.               |

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 54B48E3D-DF70-471B-AA93-08E683A1B457 | The ID of the request. |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=ModifyVpnGatewayAttribute
&RegionId=cn-shanghai
&VpnGatewayId=vpn-bp1q8bgx4xnkm2ogj0fiu
&<CommonParameters>
```

### Response example

#### • XML format

```
<ModifyVpnGatewayAttributeResponse>
  <Name>aaa</Name>
  <Status>active</Status>
  <VpnGatewayId>vpn-bp1q8bgx4xnkm2ogj0fiu</VpnGatewayId>
  <BusinessStatus>Normal</BusinessStatus>
  <Spec>5M</Spec>
  <CreateTime>1492753580000</CreateTime>
  <IntranetIp>172.16.104.xxx</IntranetIp>
  <RequestId>54B48E3D-DF70-471B-AA93-08E683A1B457</RequestId>
  <InternetIp>116.62.69.xxx</InternetIp>
  <EndTime>1495382400000</EndTime>
  <VSwitchId>vsw-bply9ovl1cu9ou4tvma0l</VSwitchId>
  <VpcId>vpc-bp1ublyt9cvakoeljly9c</VpcId>
</ModifyVpnGatewayAttributeResponse>
```

#### • JSON format

```
{
  "Name": "aaa",
  "Status": "active",
  "VpnGatewayId": "vpn-bp1q8bgx4xnkm2ogj0fiu",
  "Spec": "5M",
  "BusinessStatus": "Normal",
  "RequestId": "54B48E3D-DF70-471B-AA93-08E683A1B457",
  "IntranetIp": "172.16.104.xxx",
  "CreateTime": 1492753580000,
  "InternetIp": "116.62.69.xxx",
  "EndTime": 1495382400000,
  "VSwitchId": "vsw-bply9ovl1cu9ou4tvma0l",
  "VpcId": "vpc-bp1ublyt9cvakoeljly9c"
}
```

```
}
```

### Error codes

| HTTP status code | Error code                           | Error message                                                                                        | Description                                                                               |
|------------------|--------------------------------------|------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| 403              | Forbidden.SubUser                    | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource.                                       |
| 403              | Forbidden                            | User not authorized to operate on the specified resource.                                            | You are not authorized to operate on this resource . For more information, open a ticket. |
| 404              | InvalidVpnGatewayInstanceId.NotFound | The specified vpn gateway instance id does not exist.                                                | The specified VPN Gateway does not exist.                                                 |
| 400              | InvalidName                          | The name is not valid                                                                                | The name format is invalid.                                                               |
| 400              | InvalidDescription                   | The description is not valid                                                                         | The description format is invalid.                                                        |

[See common error codes](#)

## 11.21 CreateVpnConnection

Creates an IPsec connection.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter | Type   | Required? | Example value       | Description                                                |
|-----------|--------|-----------|---------------------|------------------------------------------------------------|
| Action    | String | Yes       | CreateVpnConnection | The action to perform. Valid value:<br>CreateVpnConnection |

| Parameter         | Type   | Required? | Example value                       | Description                                                                                                                                                                                                               |
|-------------------|--------|-----------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CustomerGatewayId | String | Yes       | vpn-bp1q8bgx4xnkm2ogj0fiu           | The ID of the customer gateway.                                                                                                                                                                                           |
| LocalSubnet       | string | Yes       | 1.1.1.0/24,1.1.2.0/24               | The CIDR block of the VPC to be connected with the on-premises data center. This parameter is used for phase two negotiation. Separate multiple CIDR blocks with commas (.). For example, 192.168.1.0/24, 192.168.2.0/24. |
| RegionId          | String | Yes       | cn-shanghai                         | The region of the IPsec connection.<br>You can obtain the region ID by calling the DescribeRegions API.                                                                                                                   |
| RemoteSubnet      | String | Yes       | 1.1.1.0/24,1.1.2.0/24               | The CIDR block of the on-premises data center. This parameter is used for phase two negotiation. Separate multiple CIDR blocks by commas (.). For example, 92.168.3.0/24, 192.168.4.0/24.                                 |
| VpnGatewayId      | String | Yes       | vpn-bp1q8bgx4xnkm2ogj0fiu           | The ID of the VPN Gateway.                                                                                                                                                                                                |
| ClientToken       | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length.                                       |

| Parameter         | Type    | Required<br>? | Example value | Description                                                                                                                                                                                                                                                                                                    |
|-------------------|---------|---------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EffectImmediately | Boolean | No            | false         | Indicates whether to delete a successfully negotiated IPsec tunnel and initiate a negotiation again. Valid values: <ul style="list-style-type: none"><li>· true : Negotiate immediately after the configuration is completed.</li><li>· false (default): Negotiate when inbound traffic is detected.</li></ul> |

| Parameter | Type        | Required? | Example value | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------|-------------|-----------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IkeConfig | JSON String | No        | ikev1         | <p>The configurations of phase one negotiation:</p> <ul style="list-style-type: none"> <li>• <code>IkeConfig . Psk</code> : Used for authentication between the IPsec VPN gateway and the customer gateway. This parameter is generated randomly by default and can contain up to 100 characters. You can also manually specify the key.</li> <li>• <code>IkeConfig . IkeVersion</code> : The version of the IKE protocol. Valid values: <code>ikev1</code>   <code>ikev2</code> . Default value: <code>ikev1</code> .</li> <li>• <code>IkeConfig . IkeMode</code> : The negotiation mode of IKE V1. Valid values: <code>main</code> ( <code>main mode</code> )   <code>aggressive</code> ( <code>aggressive mode</code> ) . Default value: <code>main</code> .</li> <li>• <code>Ikeconfig . IkeEncAlg</code> : The encryption algorithm of phase one negotiation. Valid values: <code>aes</code>   <code>aes192</code>   <code>aes256</code>   <code>des</code>   <code>3des</code> . Default value: <code>aes</code> .</li> <li>• <code>IkeConfig . IkeAuthAlg</code> : The authentication algorithm of phase one negotiation. Valid values: <code>md5</code>   <code>sha1</code> . Default</li> </ul> |

| Parameter                 | Type        | Required? | Example value | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|---------------------------|-------------|-----------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>IpssecConfig</code> | JSON String | No        | aes           | <p>The configurations of phase two negotiation:</p> <ul style="list-style-type: none"> <li> <code>IpssecConfig.IpssecEncAlg</code>: The encryption algorithm of phase two negotiation. Valid values: aes   aes192   aes256   des   3des . Default value: aes . </li> <li> <code>IpssecConfig.IpssecAuthAlg</code>: The authentication algorithm of phase two negotiation. Valid values: md5   sha1 . Default value: sha1 . </li> <li> <code>IpssecConfig.IpssecPfs</code>: Forward packets of all protocols. The Diffie-Hellman key exchange algorithm used by phase one negotiation. Valid values: group1   group2   group5   group14   group24 . Default value: group2 . </li> <li> <code>IpssecConfig.IpssecLifetime</code>: The SA lifetime value resulting from phase two negotiation. Valid value: [0, 86400]. Default value: 86400 . Unit: seconds. </li> </ul> |

| Parameter | Type   | Required? | Example value | Description                                                                                                                                                                                                                                                                |
|-----------|--------|-----------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name      | String | No        | IPsec         | The name of the IPsec connection.<br>The name must be 2 to 128 characters in length and contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter. It cannot start with <code>http ://</code> or <code>https ://</code> . |

### Response parameters

| Parameter       | Type   | Example value                        | Description                                         |
|-----------------|--------|--------------------------------------|-----------------------------------------------------|
| VpnConnectionId | String | vco-bp15oes1py4i66rmdnc7k            | The ID of the IPsec connection.                     |
| CreateTime      | Long   | 1544666102000                        | The time at which the IPsec connection was created. |
| Name            | String | test                                 | The name of the IPsec connection.                   |
| RequestId       | String | 082AD562-B8DB-4BB2-861F-DA1FCA01FD76 | The ID of the request.                              |

### Examples

#### Request example

```
https :// vpc . aliyuncs . com /? Action = CreateVpnConnection
& CustomerGatewayId = vpn - bp1q8bgx4x nkm2ogj0fi u
& LocalSubnet = 1 . 1 . 1 . 0 / 24 , 1 . 1 . 2 . 0 / 24
& RegionId = cn - shanghai
& RemoteSubnet = 1 . 1 . 1 . 0 / 24 , 1 . 1 . 2 . 0 / 24
& VpnGatewayId = vpn - bp1q8bgx4x nkm2ogj0fi u
&< CommonParameters >
```

#### Response example

##### • XML format

```
< CreateVpnConnectionResponse >
  < VpnConnectionId > vco - bp1bbi27ho jx80nck9k1 i </
  VpnConnectionId >
  < CreateTime > 1493363928 000 </ CreateTime >
```

```
</ CreateVpnConnectionResponse >
```

- JSON format

```
{
  "VpnConnectionId": "vco-bp15oes1py-4i66rmdnc7-k",
  "CreateTime": 1544666102000
}
```

#### Error codes

| HTTP status code | Error code                                | Error message                                                                                        | Description                                                          |
|------------------|-------------------------------------------|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|
| 403              | Forbidden.SubUser                         | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource.                  |
| 403              | Forbidden                                 | User not authorized to operate on the specified resource.                                            | You are not authorized to operate on this resource.                  |
| 400              | Resource.QuotaFull                        | The quota of resource is full                                                                        | The resource quota has been reached.                                 |
| 404              | InvalidCustomerGatewayInstanceId.NotFound | The specified customer gateway instance id does not exist.                                           | The specified instance does not exist.                               |
| 404              | InvalidVpnGatewayInstanceId.NotFound      | The specified vpn gateway instance id does not exist.                                                | The specified VPN Gateway does not exist.                            |
| 400              | InvalidVpnConnection.AlreadyExists        | Vpn connection already exists.                                                                       | The VPN connection already exists.                                   |
| 400              | VpnGateway.Configuring                    | The specified service is configuring.                                                                | The specified service is being configured.                           |
| 400              | VpnGateway.FinancialLocked                | The specified service is financial locked.                                                           | The specified service is locked due to insufficient account balance. |

[See common error codes](#)

## 11.22 ModifyVpnConnectionAttribute

Modifies the configurations of an IPsec connection.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter         | Type    | Required? | Example value                       | Description                                                                                                                                                                                                                                                                                                           |
|-------------------|---------|-----------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action            | String  | Yes       | ModifyVpnConnectionAttribute        | The name of this action. Value: ModifyVpnConnectionAttribute                                                                                                                                                                                                                                                          |
| RegionId          | String  | Yes       | cn-shanghai                         | The ID of the region to which the IPsec connection belongs. To query the region ID, call DescribeRegions.                                                                                                                                                                                                             |
| VpnConnectionId   | String  | Yes       | vco-bp1bbi27hojx80nck9kli           | The ID of the IPsec connection.                                                                                                                                                                                                                                                                                       |
| ClientToken       | String  | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length.                                                                                                                                      |
| EffectImmediately | Boolean | No        | false                               | Indicates whether to delete a successfully negotiated IPsec tunnel and initiate a negotiation again. Valid value: <ul style="list-style-type: none"> <li>true : Negotiate immediately after the configuration is completed.</li> <li>false (default): Negotiate when traffic is detected over the network.</li> </ul> |

| Parameter | Type        | Required? | Example value | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-----------|-------------|-----------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IkeConfig | JSON String | No        | ikev1, ikev2  | <p>The configurations of phase one negotiation:</p> <ul style="list-style-type: none"> <li>• <code>IkeConfig . Psk</code> : Used for authentication between the IPsec VPN gateway and the customer gateway. By default, this parameter is generated randomly and can contain up to 100 characters. You can also manually specify the key.</li> <li>• <code>IkeConfig . IkeVersion</code> : The version of the IKE protocol. Valid values: <code>ikev1</code>   <code>ikev2</code> . Default value: <code>ikev1</code> .</li> <li>• <code>IkeConfig . IkeMode</code> : The negotiation mode of IKE V1. Valid values: <code>main</code> ( <code>main mode</code> )   <code>aggressive</code> ( <code>aggressive mode</code> ) . Default value: <code>main</code> .</li> <li>• <code>IkeConfig . IkeEncAlg</code> : The encryption algorithm of phase one negotiation. Valid values: <code>aes</code>   <code>aes192</code>   <code>aes256</code>   <code>des</code>   <code>3des</code> . Default value: <code>aes</code> .</li> <li>• <code>IkeConfig . IkeAuthAlg</code> : The authentication algorithm of phase one negotiation. Valid values: <code>md5</code>   <code>sha1</code> . Default</li> </ul> |

| Parameter                 | Type        | Required? | Example value | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------|-------------|-----------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>IpssecConfig</code> | JSON String | No        | aes           | <p>The configurations of phase-two negotiation:</p> <ul style="list-style-type: none"> <li> <code>IpssecConfig.IpssecEncAlg</code>: The encryption algorithm of phase-two negotiation. Valid value: <code>aes</code>   <code>aes192</code>   <code>aes256</code>   <code>des</code>   <code>3des</code>. Default value: <code>aes</code>. </li> <li> <code>IpssecConfig.IpssecAuthAlg</code>: The authentication algorithm of phase-two negotiation. Valid value: <code>md5</code>   <code>sha1</code>. Default value: <code>sha1</code>. </li> <li> <code>IpssecConfig.IpssecPfs</code>: Forward packets of all protocols. The Diffie-Hellman key exchange algorithm used by phase-one negotiation. Valid value: <code>group1</code>   <code>group2</code>   <code>group5</code>   <code>group14</code>   <code>group24</code>. Default value: <code>group2</code>. </li> <li> <code>IpssecConfig.IpssecLifetime</code>: The SA lifecycle as the result of phase-two negotiation. The valid value is [0, 86400], the unit is second and the default value is 86400. </li> </ul> |

| Parameter    | Type   | Required? | Example value         | Description                                                                                                                                                                                                                                                                  |
|--------------|--------|-----------|-----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LocalSubnet  | String | Yes       | 1.1.1.0/24,1.1.2.0/24 | The CIDR block of the VPC to be connected with the on-premises data center. This parameter is used for phase two negotiation. Separate multiple CIDR blocks with commas (.). For example, 192.168.1.0/24,192.168.2.0/24.                                                     |
| Name         | String | No        | IPsec                 | The name of the IPsec connection.<br>The name must be 2 to 128 characters in length and can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter. It cannot start with <code>http://</code> or <code>https://</code> . |
| RemoteSubnet | String | No        | 1.1.1.0/24,1.1.2.0/24 | The CIDR block of the local data center. This parameter is used for phase-two negotiation. Separate multiple CIDR blocks with commas (.). For example, 192.168.3.0/24, 192.168.4.0/24.                                                                                       |

## Response parameters

| Parameter         | Type   | Example value             | Description                       |
|-------------------|--------|---------------------------|-----------------------------------|
| VpnConnectionId   | String | vco-bp1bbi27hojx80nck9k1i | The ID of the IPsec connection.   |
| CustomerGatewayId | String | vpn-bp1q8bgx4xnkm2ogj0fiu | The ID of the customer gateway.   |
| VpnGatewayId      | String | vpn-bp1q8bgx4xnkm2ogj0fiu | The ID of the VPN Gateway.        |
| Name              | String | xxxxxxx                   | The name of the IPsec connection. |
| LocalSubnet       | String | 1.1.1.0/24,1.1.2.0/24     | The CIDR block of the VPC.        |

| Parameter         | Type    | Example value         | Description                                                                                                                                                                           |
|-------------------|---------|-----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RemoteSubnet      | String  | 1.1.1.0/24,1.1.2.0/24 | The CIDR block of the on-premises data center.                                                                                                                                        |
| CreateTime        | Long    | 1492753817000         | The time at which the IPsec connection was created.                                                                                                                                   |
| Description       | String  | xxxxxxx               | The description.                                                                                                                                                                      |
| EffectImmediately | Boolean | false                 | Indicates whether the IPsec connection takes effect immediately.                                                                                                                      |
| IkeConfig         |         |                       | Configurations of phase one negotiation.                                                                                                                                              |
| ⌞IkeAuthAlg       | String  | sha1                  | The IKE authentication algorithm. SHA-1 and MD5 are supported.                                                                                                                        |
| ⌞IkeEncAlg        | String  | aes                   | The IKE encryption algorithm.                                                                                                                                                         |
| ⌞IkeLifetime      | Long    | 86400                 | The IKE lifetime.                                                                                                                                                                     |
| ⌞IkeMode          | String  | main                  | The IKE mode. Both main mode and aggressive mode are supported. The main mode features high security. If NAT traversal is enabled , we recommend that you select the aggressive mode. |
| ⌞IkePfs           | String  | group2                | The DH group. Valid values:group1   group2   group5   group14   group24                                                                                                               |
| ⌞IkeVersion       | String  | ikev1                 | The IKE version.                                                                                                                                                                      |
| ⌞LocalId          | String  | 116.62.69.64          | The local ID. It is the IP address of the VPN Gateway by default. Both FQDN and IP formats are supported .                                                                            |
| ⌞Psk              | String  | pgw6dy7d1i8in7x5      | The pre-shared key.                                                                                                                                                                   |
| ⌞RemoteId         | String  | 139.196.32.167        | The peer ID. By default, it is the IP address of the customer gateway . Both FQDN and IP formats are supported.                                                                       |
| IpsecConfig       |         |                       | Configurations of phase two negotiation.                                                                                                                                              |

| Parameter                  | Type   | Example value                        | Description                                                            |
|----------------------------|--------|--------------------------------------|------------------------------------------------------------------------|
| <code>IpsecAuthAlg</code>  | String | sha1                                 | The IPsec authentication algorithm . Both SHA-1 and MD5 are supported. |
| <code>IpsecEncAlg</code>   | String | aes                                  | The IPsec encryption algorithm.                                        |
| <code>IpsecLifetime</code> | Long   | 86400                                | The IPsec lifetime.                                                    |
| <code>IpsecPfs</code>      | String | group2                               | The DH group.                                                          |
| <code>RequestId</code>     | String | 7DB79D0C-5F27-4AB5-995B-79BE55102F90 | The ID of the request.                                                 |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=ModifyVpnConnectionAttribute
&RegionId=cn-shanghai
&VpnConnectionId=vco-bp1bbi27hojx80nck9k1i
&<CommonParameters>
```

### Response example

#### • XML format

```
<ModifyVpnConnectionAttributeResponse>
  <Name>vpn_connection_test</Name>
  <CustomerGatewayId>cgw-bp1pvpl9r9adju6l5nxc k</CustomerGatewayId>
  <RemoteSubnet>2.2.2.0/24</RemoteSubnet>
  <IpsecConfig>
    <IpsecLifetime>86400</IpsecLifetime>
    <IpsecAuthAlg>sha1</IpsecAuthAlg>
    <IpsecPfs>group2</IpsecPfs>
    <IpsecEncAlg>aes</IpsecEncAlg>
  </IpsecConfig>
  <EffectImmediately>>false</EffectImmediately>
  <VpnGatewayId>vpn-bp1q8bgx4xnkm2ogj0fiu</VpnGatewayId>
  <CreateTime>1492753817000</CreateTime>
  <VpnConnectionId>vco-bp10lz7aejumd2vxogge v</VpnConnectionId>
  <RequestId>57070A3D-38F2-40A6-A1C9-DB14542EF54D</RequestId>
  <LocalSubnet>1.1.1.0/24,1.1.2.0/24</LocalSubnet>
  <IkeConfig>
    <IkeEncAlg>aes</IkeEncAlg>
    <RemoteId>139.196.32.167</RemoteId>
```

```

    < IkePfs > group2 </ IkePfs >
    < IkeAuthAlg > sha1 </ IkeAuthAlg >
    < Psk > pgw6dy7dli 8in7x5 </ Psk >
    < IkeMode > main </ IkeMode >
    < IkeLifetim e > 86400 </ IkeLifetim e >
    < IkeVersion > ikev1 </ IkeVersion >
    < LocalId > 116 . 62 . 69 . 64 </ LocalId >
  </ IkeConfig >
</ ModifyVpnC onnectionA ttributeRe sponse >

```

• JSON format

```

{
  " CustomerGa tewayId ":" cgw - bp1pvpl9r9 adju6l5nxc k ",
  " Name ":" vpn   connection   test ",
  " RemoteSubn et ":" 2 . 2 . 2 . 0 / 24 ",
  " IpsecConfi g ":{
    " IpsecLifet ime ": 86400 ,
    " IpsecAuthA lg ":" sha1 ",
    " IpsecPfs ":" group2 ",
    " IpsecEncAl g ":" aes "
  },
  " VpnGateway Id ":" vpn - bp1q8bgx4x nkm2ogj0fi u ",
  " EffectImme diately ": false ,
  " RequestId ":" 7DB79D0C - 5F27 - 4AB5 - 995B - 79BE55102F 90 ",
  " VpnConnect ionId ":" vco - bp10lz7aej umd2vxogge v ",
  " CreateTime ": 1492753817 000 ,
  " LocalSubne t ":" 1 . 1 . 1 . 0 / 24 , 1 . 1 . 2 . 0 / 24 ",
  " IkeConfig ":{
    " IkeEncAlg ":" aes ",
    " IkePfs ":" group2 ",
    " RemoteId ":" 139 . 196 . 32 . 167 ",
    " IkeAuthAlg ":" sha1 ",
    " Psk ":" pgw6dy7dli 8in7x5 ",
    " IkeMode ":" main ",
    " IkeLifetim e ": 86400 ,
    " IkeVersion ":" ikev1 ",
    " LocalId ":" 116 . 62 . 69 . 64 "
  }
}

```

## Error codes

| HTTP status code | Error code            | Error message                                                                                        | Description                                         |
|------------------|-----------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| 403              | Forbidden.<br>SubUser | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource. |
| 403              | Forbidden             | User not authorized to operate on the specified resource.                                            | You are not authorized to operate on this resource. |

| HTTP status code | Error code                              | Error message                                            | Description                                  |
|------------------|-----------------------------------------|----------------------------------------------------------|----------------------------------------------|
| 404              | InvalidVpnConnectionInstanceId.NotFound | The specified vpn connection instance id does not exist. | The specified VPN connection does not exist. |
| 400              | VpnGateway.Configuring                  | The specified service is configuring.                    | The specified service is been configured.    |
| 400              | VpnGateway.FinancialLocked              | The specified service is financial locked.               | The specified service is financial locked.   |
| 400              | InvalidName                             | The name is not valid                                    | The name format is invalid.                  |

[See common error codes](#)

## 11.23 CreateSslVpnClientCert

Creates an SSL-VPN client certificate.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter      | Type   | Required? | Example value             | Description                                                                                          |
|----------------|--------|-----------|---------------------------|------------------------------------------------------------------------------------------------------|
| Action         | String | Yes       | CreateSslVpnClientCert    | The name of this action. Value: CreateSslVpnClientCert                                               |
| RegionId       | String | Yes       | cn-hangzhou               | The ID of the region to which the VPN Gateway belongs. To query the region ID, call DescribeRegions. |
| SslVpnServerId | String | Yes       | vss-m5et0q3iy1qex328wcujx | The ID of the SSL-VPN server to be used.                                                             |

| Parameter    | Type   | Required? | Example value                       | Description                                                                                                                                                                                                                                                                     |
|--------------|--------|-----------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ClientToken  | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length.                                                                                             |
| Name         | String | No        | SslVpnClientCert1                   | The name of the client certificate.<br>The name must be 2 and 128 characters in length and can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter. It cannot start with <code>http://</code> or <code>https://</code> . |
| OwnerAccount | String | No        | test                                | The account of the owner of the SSL-VPN client certificate.                                                                                                                                                                                                                     |

### Response parameters

| Parameter          | Type   | Example value                        | Description                         |
|--------------------|--------|--------------------------------------|-------------------------------------|
| Name               | String | SslVpnClientCert                     | The name of the client certificate. |
| RequestId          | String | 079874CD-AEC1-43E6-AC03-ADD96B6E4907 | The ID of the request.              |
| SslVpnClientCertId | String | vsc-m5euof6s5jy8vs5kdz2r2            | The ID of the client certificate.   |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=CreateSslVpnClientCert
&RegionId=cn-hangzhou
&SslVpnServerId=vss-m5et0q3iy1-qex328wcuja
```

&< CommonParameters >

## Response example

### • XML format

```
< CreateSslVpnClientCertificateResponse >
  < SslVpnClientCertificateId > vsc-bp1n8wcf13-4yl0osrcg9-8 </
  SslVpnClientCertificateId >
  < RequestId > 606998F0-B94D-48FE-8316-ACA81BB230-DA </
  RequestId >
</ CreateSslVpnClientCertificateResponse >
```

### • JSON format

```
{
  "RequestId": "606998F0-B94D-48FE-8316-ACA81BB230-DA",
  "SslVpnClientCertificateId": "vsc-bp1n8wcf13-4yl0osrcg9-8"
}
```

## Error codes

| HTTP status code | Error code                 | Error message                                                                                        | Description                                                                                        |
|------------------|----------------------------|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| 403              | Forbidden.SubUser          | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource. Please apply for the permission and try again. |
| 403              | Forbidden                  | User not authorized to operate on the specified resource.                                            | You are not authorized to operate on this resource. For more information, open a ticket.           |
| 400              | Resource.QuotaFull         | The quota of resource is full                                                                        | The resource quota has been reached.                                                               |
| 400              | VpnGateway.Configuring     | The specified service is configuring.                                                                | The service is being configured. Please try again later.                                           |
| 400              | VpnGateway.FinancialLocked | The specified service is financial locked.                                                           | The service has an overdue payment. Renew your account to settle the overdue payment.              |
| 400              | InvalidName                | The name is not valid                                                                                | The name format is invalid.                                                                        |

[See common error codes](#)

## 11.24 DescribeSslVpnClientCerts

Queries SSL-VPN client certificates.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter          | Type    | Required? | Example value             | Description                                                                                                        |
|--------------------|---------|-----------|---------------------------|--------------------------------------------------------------------------------------------------------------------|
| Action             | String  | Yes       | DescribeSslVpnClientCerts | The name of this action. Value: DescribeSslVpnClientCerts                                                          |
| RegionId           | String  | Yes       | cn-hangzhou               | The ID of region to which the SSL-VPN client certificate belongs.<br>To query the region ID, call DescribeRegions. |
| Name               | String  | No        | cert1                     | The name of the SSL-VPN client certificate.                                                                        |
| PageNumber         | Integer | No        | 1                         | The number of pages to return. Default value: 1 .                                                                  |
| PageSize           | Integer | No        | 10                        | The number of rows per page. Maximum value: 50 . Default value: 10 .                                               |
| SslVpnClientCertId | String  | No        | vsc-bp1n8wcf134yl0osrcg98 | The ID of the client certificate.                                                                                  |
| SslVpnServerId     | String  | No        | vss-bp18q7hzj6largv4vk2fe | The ID of the SSL-VPN.                                                                                             |

### Response parameters

| Parameter  | Type    | Example value | Description                     |
|------------|---------|---------------|---------------------------------|
| PageNumber | Integer | 1             | The current page number.        |
| PageSize   | Integer | 10            | The number of entries per page. |

| Parameter            | Type    | Example value                        | Description                                                                                                                                                                                                                                          |
|----------------------|---------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RequestId            | String  | 5BE01CD7-5A50-472D-AC14-CA181C5C03BE | The ID of the request.                                                                                                                                                                                                                               |
| SslVpnClientCertKeys | N/A     | N/A                                  | A list of SSL-VPN client certificates.                                                                                                                                                                                                               |
| └CreateTime          | Long    | 1492747187000                        | The time at which the client certificate was created.                                                                                                                                                                                                |
| └EndTime             | Long    | 1494966335000                        | The time at which the client certificate is to expire.                                                                                                                                                                                               |
| └Name                | String  | cert1                                | The name of the client certificate.                                                                                                                                                                                                                  |
| └RegionId            | String  | cn-hangzhou                          | The region of the SSL-VPN client certificate.                                                                                                                                                                                                        |
| └SslVpnClientCertId  | String  | vsc-bp1n8wcf134yl0osrcg98            | The ID of the SSL-VPN client certificate.                                                                                                                                                                                                            |
| └SslVpnServerId      | String  | vss-bp18q7hzj6largv4vk2fe            | The ID of the SSL-VPN server.                                                                                                                                                                                                                        |
| └Status              | String  | normal                               | The status of the client certificate: <ul style="list-style-type: none"> <li>· expiring-soon: The certificate will expire after one week.</li> <li>· normal: The certificate is valid. .</li> <li>· expired: The certificate has expired.</li> </ul> |
| TotalCount           | Integer | 1                                    | The number of queried entries.                                                                                                                                                                                                                       |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DescribeSslVpnClientCerts
&RegionId=cn-hangzhou
&<CommonParameters>
```

### Response example

#### · XML format

```
<DescribeSslVpnServersResponse>
  <PageNumber>1</PageNumber>
  <TotalCount>1</TotalCount>
  <PageSize>10</PageSize>
```

```

< SslVpnServers >
  < SslVpnServer >
    < RegionId > cn - hangzhou </ RegionId >
    < SslVpnServerId > vss - bp1q7hzj6 largv4vk2f e </
SslVpnServerId >
    < VpnGatewayId > vpn - bp1q8bgx4x nkm2ogj0fi u </
VpnGatewayId >
    < Name > test </ Name >
    < ClientIpPool > 10 . 10 . 10 . 20 / 24 </ ClientIpPool >
    < LocalSubnet > 10 . 10 . 10 . 10 / 24 </ LocalSubnet >
    < Proto > UDP </ Proto >
    < Port > 1194 </ Port >
    < Cipher > AES - 128 - CBC </ Cipher >
    < Compress > true </ Compress >
    < CreateTime > 1492753580 000 </ CreateTime >
    < Connections > 0 </ Connections >
    < MaxConnections > 5 </ MaxConnections >
    < InternetIp > 47 . 98 . xx . xx </ InternetIp >
  </ SslVpnServer >
</ SslVpnServers >
< RequestId > DF11D6F6 - E35A - 41C3 - 9B20 - 6FC8A901FE 65 </
RequestId >
</ DescribeSslVpnServersResponse >

```

• JSON format

```

{
  "DescribeSslVpnServersResponse":{
    "PageNumber":"1",
    "TotalCount":"1",
    "SslVpnServers":{
      "SslVpnServer":{
        "VpnGatewayId":"vpn - bp1q8bgx4x nkm2ogj0fi u",
        "ClientIpPool":"10 . 10 . 10 . 20 / 24",
        "Proto":"UDP",
        "Cipher":"AES - 128 - CBC",
        "InternetIp":"47 . 98 . xx . xx",
        "SslVpnServerId":"vss - bp1q7hzj6 largv4vk2f e",
        "Name":"test",
        "Port":"1194",
        "MaxConnections":"5",
        "RegionId":"cn - hangzhou",
        "CreateTime":"1492753580 000",
        "Compress":"true",
        "LocalSubnet":"10 . 10 . 10 . 10 / 24",
        "Connections":"0"
      }
    },
    "PageSize":"10",
    "RequestId":"DF11D6F6 - E35A - 41C3 - 9B20 - 6FC8A901FE 65"
  }
}

```

```
}
```

### Error codes

| HTTP status code | Error code            | Error message                                                                                        | Description                                                                                         |
|------------------|-----------------------|------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| 403              | Forbbiden.<br>SubUser | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource . Please apply for the permission and try again. |
| 403              | Forbidden             | User not authorized to operate on the specified resource.                                            | You are not authorized to operate on this resource . For more information, open a ticket.           |

[See common error codes](#)

## 12 API overview

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This document summarizes all callable VPC APIs. For detailed API information, see related documents. For more information, see [API Explorer](#).

### VPC

| API                | Description                               |
|--------------------|-------------------------------------------|
| CreateVpc          | Create a VPC.                             |
| DeleteVpc          | Delete a VPC.                             |
| DescribeVpcs       | Query created VPCs.                       |
| ModifyVpcAttribute | Modify the name and description of a VPC. |

### Router interface

| API                    | Description                                   |
|------------------------|-----------------------------------------------|
| DescribeVRouters       | Query the list of VRouters in a region.       |
| ModifyVRouterAttribute | Modify the name and description of a VRouter. |

### VSwitch

| API                    | Description                                   |
|------------------------|-----------------------------------------------|
| CreateVSwitch          | Create a VSwitch.                             |
| DeleteVSwitch          | Delete a VSwitch.                             |
| DescribeVSwitches      | Query created VSwitches.                      |
| ModifyVSwitchAttribute | Modify the name and description of a VSwitch. |

### Route table

| API              | Description                                                  |
|------------------|--------------------------------------------------------------|
| CreateRouteEntry | Create a custom route entry on a VRouter or VBR.             |
| DeleteRouteEntry | Delete a route entry in the route table of a VRouter or VBR. |

| API                        | Description                           |
|----------------------------|---------------------------------------|
| <b>DescribeRouteTables</b> | Query route entries in a route table. |

## EIP

| API                              | Description                                                 |
|----------------------------------|-------------------------------------------------------------|
| <b>AllocateEipAddress</b>        | Create an EIP.                                              |
| <b>AssociateEipAddress</b>       | Bind an EIP to a cloud product instance in the same region. |
| <b>UnassociateEipAddress</b>     | Unbind an EIP from a cloud product instance.                |
| <b>DescribeEipAddresses</b>      | Query created EIPs in a region.                             |
| <b>ModifyEipAddressAttribute</b> | Modify the name, description, and peak bandwidth of an EIP. |
| <b>ReleaseEipAddress</b>         | Release an EIP.                                             |

## NAT Gateway

| API                                    | Description                                                 |
|----------------------------------------|-------------------------------------------------------------|
| <b>CreaeNatGateway</b>                 | Create a NAT Gateway.                                       |
| <b>DescribeNatGateways</b>             | Query created NAT Gateways.                                 |
| <b>ModifyBandwidthPackageSpec</b>      | Modify a NAT Gateway.                                       |
| <b>ModifyNatGatewayAttribute</b>       | Modify the configurations of a NAT Gateway.                 |
| <b>DeleteNatGateway</b>                | Delete a NAT Gateway.                                       |
| <b>CreateBandwidthPackage</b>          | Create a NAT bandwidth package.                             |
| <b>DescribeBandwidthPackages</b>       | Query NAT bandwidth packages in a region.                   |
| <b>ModifyBandwidthPackageSpec</b>      | Modify the bandwidth of a NAT bandwidth package.            |
| <b>ModifyBandwidthPackageAttribute</b> | Modify the name and description of a NAT bandwidth package. |
| <b>AddBandwidthPackageIps</b>          | Modify a NAT bandwidth package-Add public IPs.              |
| <b>RemoveBandwidthPackageIps</b>       | Modify a NAT bandwidth package-Remove public IPs.           |

| API                         | Description                                 |
|-----------------------------|---------------------------------------------|
| DeleteBandwidthPackage      | Delete a NAT bandwidth package.             |
| CreateForwardEntry          | Add a DNAT entry in a DNAT table.           |
| DescribeForwardTableEntries | Query created DNAT entries.                 |
| ModifyForwardEntry          | Modify a DNAT entry.                        |
| DeleteForwardEntry          | Delete a DNAT entry.                        |
| CreateSnatEntry             | Add an SNAT entry in a SNAT table.          |
| DescribeSnatTableEntries    | Query created SNAT entries in a SNAT table. |
| ModifySnatEntry             | Modify an SNAT entry.                       |
| DeleteSnatEntry             | Delete an SNAT entry.                       |

### VPN Gateways

| API                            | Description                                                |
|--------------------------------|------------------------------------------------------------|
| CreateVpnGateway               | Create a VPN Gateways.                                     |
| DescribeVpnGateways            | Query created VPN Gatewayss.                               |
| DescribeVpnGateway             | Query the detailed information of a VPN Gateways.          |
| ModifyVpnGatewayAttribute      | Modify the name and description of a VPN Gateways.         |
| DeleteVpnGateway               | Delete a VPN Gateways.                                     |
| CreateCustomerGateway          | Create a customer gateway.                                 |
| DescribeCustomerGateways       | Query created customer gateways.                           |
| DescribeCustomerGateway        | Query the detailed information of a customer gateway.      |
| DeleteCustomerGateway          | Delete a customer gateway.                                 |
| ModifyCustomerGatewayAttribute | Modify the name and description of a customer gateway.     |
| CreateVpnConnection            | Create an IPSec-VPN connection.                            |
| DescribeVpnConnections         | Query created IPSec-VPN connections.                       |
| DescribeVpnConnection          | Query the detailed information of an IPSec-VPN connection. |

| API                                 | Description                                           |
|-------------------------------------|-------------------------------------------------------|
| <b>ModifyVpnConnectionAttribute</b> | Modify the configurations of an IPSec-VPN connection. |
| <b>DeleteVpnConnection</b>          | Delete an IPSec-VPN connection.                       |
| <b>DownloadVpnConnectionConfig</b>  | Obtain the configurations of an IPSec-VPN connection. |
| <b>CreateSslVpnServer</b>           | Create an SSL-VPN server.                             |
| <b>DescribeSslVpnServers</b>        | Query created SSL-VPN servers.                        |
| <b>DeleteSslVpnServer</b>           | Remove an SSL-VPN server.                             |
| <b>ModifySslVpnServer</b>           | Modify the configurations of an SSL-VPN server.       |
| <b>CreateSslVpnClientCert</b>       | Create an SSL-VPN client certificate.                 |
| <b>DescribeSslVpnClientCerts</b>    | Query created SSL-VPN client certificates.            |
| <b>DeleteSslVpnClientCert</b>       | Delete an SSL-VPN client certificate.                 |
| <b>ModifySslVpnClientCert</b>       | Modify the name of an SSL-VPN client certificate.     |

## Region

| API                         | Description                      |
|-----------------------------|----------------------------------|
| <b>DescribeRegions</b>      | Query regions.                   |
| <b>DescribeZones</b>        | Query zones.                     |
| <b>DescribeAccessPoints</b> | Query access points in a region. |

## Monitor

| API                                                | Description                                                            |
|----------------------------------------------------|------------------------------------------------------------------------|
| <b>DescribeBandwidthPackagePublicIpMonitorData</b> | Query the monitoring data of a public IP in the NAT bandwidth package. |
| <b>DescribeEipMonitorData</b>                      | Query the monitoring information of an EIP.                            |

## Physical connection

| API                             | Description                   |
|---------------------------------|-------------------------------|
| <b>CreatePhysicalConnection</b> | Create a physical connection. |

| API                               | Description                                                                                                                                                                                                                                     |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CancelPhysicalConnection          | Cancel physical connection access before the physical connection is enabled.                                                                                                                                                                    |
| DescribePhysicalConnections       | Query created physical connections in a region.                                                                                                                                                                                                 |
| ModifyPhysicalConnectionAttribute | Modify the configurations of a physical connection.                                                                                                                                                                                             |
| TerminatePhysicalConnection       | Terminate the access of the physical connection after the physical connection is enabled. The physical connection changes to the Terminating status after the API is called and changes to the Terminated status when the process is completed. |
| EnablePhysicalConnection          | Enable the physical connection in the Confirmed status. Then the physical connection changes to the Enabled status .                                                                                                                            |
| DeletePhysicalConnection          | Delete a physical connection.                                                                                                                                                                                                                   |

## VBR

| API                                               | Description                                                         |
|---------------------------------------------------|---------------------------------------------------------------------|
| CreateVirtualBorderRouter                         | Create a Virtual Border Router (VBR).                               |
| DeleteVirtualBorderRouter                         | Delete a VBR.                                                       |
| DescribeVirtualBorderRouters                      | Query created Virtual Border Routers.                               |
| DescribeVirtualBorderRoutersForPhysicalConnection | Query the Virtual Border Routers created for a physical connection. |
| ModifyVirtualBorderRouterAttribute                | Modify the configurations of a VBR.                                 |
| TerminateVirtualBorderRouter                      | Terminate a Virtual Border Router (VBR).                            |
| RecoverVirtualBorderRouter                        | Recover a terminated VBR.                                           |

## Router interface

| API                      | Description                          |
|--------------------------|--------------------------------------|
| CreateRouterInterface    | Create a router interface.           |
| DescribeRouterInterfaces | Query router interfaces in a region. |

| API                                   | Description                                                                             |
|---------------------------------------|-----------------------------------------------------------------------------------------|
| <b>ConnectRouterInterface</b>         | The initiator router interface initiates a connection to the receiver router interface. |
| <b>ActivateRouterInterface</b>        | Activate a router interface in the Inactive status.                                     |
| <b>DeactivateRouterInterface</b>      | Deactivate a router interface.                                                          |
| <b>ModifyRouterInterfaceSpec</b>      | Modify the specification of a router interface.                                         |
| <b>ModifyRouterInterfaceAttribute</b> | Modify the configurations of a router interface.                                        |
| <b>DeleteRouterInterface</b>          | Delete a router interface.                                                              |

## BGP

| API                            | Description                                |
|--------------------------------|--------------------------------------------|
| <b>CreateBgpGroup</b>          | Create a BGP group for a VBR.              |
| <b>DescribeBgpGroups</b>       | Query created BGP groups in a region.      |
| <b>ModifyBgpGroupAttribute</b> | Modify the configurations of a BGP group . |
| <b>DeleteBgpGroup</b>          | Delete a BGP group.                        |
| <b>CreateBgpPeer</b>           | Add a BGP peer to a BGP group.             |
| <b>DescribeBgpPeers</b>        | Query the BGP peers in a region.           |
| <b>DeleteBgpPeer</b>           | Delete a BGP peer.                         |
| <b>AddBgpNetwork</b>           | Advertise a BGP network.                   |
| <b>DeleteBgpNetwork</b>        | Delete an advertised BGP network.          |
| <b>DescribeBgpNetworks</b>     | Query advertised BGP networks.             |

## Global Acceleration

| API                                               | Description                                                        |
|---------------------------------------------------|--------------------------------------------------------------------|
| <b>CreateGlobalAccelerationInstance</b>           | Create a Global Acceleration instance.                             |
| <b>DescribeGlobalAccelerationInstances</b>        | Query the list of created Global Acceleration instances.           |
| <b>ModifyGlobalAccelerationInstanceAttributes</b> | Modify the name and description of a Global Acceleration instance. |

| API                                                     | Description                                                               |
|---------------------------------------------------------|---------------------------------------------------------------------------|
| <b>ModifyGlobalAccelerationInstanceSpec</b>             | Modify the bandwidth of a Global Acceleration instance.                   |
| <b>DeleteGlobalAccelerationInstance</b>                 | Delete a Global Acceleration instance.                                    |
| <b>AssociateGlobalAccelerationInstance</b>              | Bind a Global Acceleration instance to a backend server.                  |
| <b>UnassociateGlobalAccelerationInstance</b>            | Unbind a Global Acceleration instance from the associated backend server. |
| <b>DescribeServerRelatedGlobalAccelerationInstances</b> | Query Global Acceleration instances bound to a backend server.            |

## 13 NAT Gateway

### 13.1 CreateNatGateway

Create a NAT Gateway.

Note the following before creating a NAT Gateway:

- A NAT Gateway and a self-hosted SNAT Gateway cannot coexist in a VPC.
- After a NAT Gateway is created, a route entry of which the destination CIDR block is 0.0.0.0/0 and the next hop is the NAT Gateway is automatically added to the route table of the VPC. This means that traffic can be routed to the NAT Gateway.
- If a route entry of which the destination CIDR block is 0.0.0.0/0 already exists in the route table of the VPC, you need to delete the router entry. Otherwise, the NAT Gateway cannot be created.

#### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs. API Explorer can help reduce possible difficulty with using cloud APIs. We recommend that you use API Explorer.

#### Request parameters

| Parameter | Type   | Required? | Example value             | Description                                                                                    |
|-----------|--------|-----------|---------------------------|------------------------------------------------------------------------------------------------|
| Action    | String | Yes       | CreateNatGateway          | The action to perform. Valid value:<br>CreateNatGateway                                        |
| RegionId  | String | Yes       | cn-hangzhou               | The region to which the NAT Gateway belongs.<br>To obtain the region ID, call DescribeRegions. |
| VpcId     | String | Yes       | vpc-bp1di7uewzmtvfug8ufpv | The ID of the VPC to be used.                                                                  |

| Parameter                    | Type   | Required? | Example value | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------------------------|--------|-----------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BandwidthPackage.n.Bandwidth | String | No        | 5             | <p>The bandwidth of the NAT bandwidth package (n). Valid value: [5,5000]</p> <div>  <b>Note:</b><br/>           This API can be called only if you purchased a NAT bandwidth package before January 26, 2018. If your account does not have a NAT bandwidth package purchased before January 26, 2018, you need to attach an EIP.         </div>                                                               |
| BandwidthPackage.N.ISP       | String | No        | BGP           | The ISP type of the shared bandwidth package (n). Default value: BGP (multiple lines).                                                                                                                                                                                                                                                                                                                                                                                                           |
| BandwidthPackage.n.IpCount   | String | No        | 5             | <p>The number of public IP addresses in the shared bandwidth package. Valid value: [1,50]. n represents the n-th bandwidth package. Valid values: [1,4].</p> <div>  <b>Note:</b><br/>           This API can be called only if you purchased a NAT bandwidth package before January 26, 2018. If your account did not include a NAT bandwidth package before January 26, 2018, attach an EIP.         </div> |

| Parameter               | Type   | Required? | Example value     | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-------------------------|--------|-----------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BandwidthPackage.N.Zone | String | No        | cn-hangzhou-b     | <p>The zone of the shared bandwidth package (n). The system randomly allocates a zone if this parameter is not specified.</p> <p>If the NAT bandwidth package and the backend ECS instance are not in the same zone, the latency of the connection between them is unchanged; if they are in the same zone, the latency can be reduced.</p> <div>  <b>Note:</b><br/>           This API can be called only if you purchased a NAT bandwidth package before January 26, 2018. If your account does not have a NAT bandwidth package before January 26, 2018, you need to attach an EIP.         </div> |
| ClientToken             | String | No        | shefffxddjehfh123 | <p>A client token used to guarantee the idempotence of requests.</p> <p>This parameter value is generated by the client and must be unique. It cannot exceed 64 ASCII characters.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Description             | String | No        | testnat           | <p>The description of the NAT Gateway.</p> <p>The description must be 2 to 256 characters in length. It cannot start with <code>http://</code> or <code>https://</code>.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

| Parameter | Type   | Required ? | Example value | Description                                                                                                                                                                                                                                                                                                                                     |
|-----------|--------|------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name      | String | No         | fortest       | The name of the NAT Gateway. The name must be 2 and 128 characters in length. It can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter. It cannot start with <code>http://</code> or <code>https://</code> .<br>If this parameter is not specified, the gateway ID is used by default. |
| Spec      | String | No         | small         | The specification of the NAT Gateway. Valid values: <ul style="list-style-type: none"> <li>Small (default): small</li> <li>Middle : medium</li> <li>Large : large</li> <li>Xlarge . 1 : super large</li> </ul>                                                                                                                                  |

## Response parameters

| Parameter           | Type   | Example value                        | Description                                                                          |
|---------------------|--------|--------------------------------------|--------------------------------------------------------------------------------------|
| NatGatewayId        | String | ngw-112za33e4                        | The ID of the NAT Gateway. The ID is generated by the system and is globally unique. |
| ForwardTableIds     |        | ftb-11tc6xgmv                        | A list of forwarding tables.                                                         |
| BandwidthPackageIds |        | bwp-11odxu2k7                        | A list of shared bandwidth packages.                                                 |
| RequestId           | String | 2315DEB7-5E92-423A-91F7-4C1EC9AD97C3 | The ID of the request.                                                               |
| SnatTableIds        |        | stb-SnatTableIds                     | The ID of the SNAT table.                                                            |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=CreateNatGateway
&RegionId=cn-hangzhou
&VpcId=vpc-bp1di7uewz-mtvfuq8ufp-v
&<CommonParameters>
```

### Response example

- XML format

```
<CreateNatGatewayResponse>
  <BandwidthPackageIds>bwp-*****</BandwidthPackageIds>
  <forwardTableIds>ftb-*****</forwardTableIds>
  <natGatewayId>ngw-*****</natGatewayId>
  <snatTableIds>stb-*****</snatTableIds>
  <RequestId>E43E51F2-344F-4685-8DF5-30EB298CFA81</RequestId>
</CreateNatGatewayResponse>
```

- JSON format

```
{
  "BandwidthPackageIds": [
    "bwp-*****"
  ],
  "snatTableIds": [
    "stb-*****"
  ],
  "natGatewayId": "ngw-*****",
  "RequestId": "E43E51F2-344F-4685-8DF5-30EB298CFA81",
  "forwardTableIds": [
    "ftb-*****"
  ]
}
```

### Error codes

| HTTP code | Error code                        | Error message                                                 | Description                                              |
|-----------|-----------------------------------|---------------------------------------------------------------|----------------------------------------------------------|
| 400       | InvalidVPCStatus                  | vpc incorrect status.                                         | The VPC status is invalid.                               |
| 404       | InvalidRegionId.NotFound          | The specified RegionId does not exist in our records.         | The specified region ID does not exist.                  |
| 400       | MissingParameter.BandwidthPackage | only support one BandwidthPackage be created with NatGateway. | At least one shared bandwidth package must be specified. |

| HTTP code | Error code                                              | Error message                                       | Description                                                                  |
|-----------|---------------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------|
| 400       | MissingParameter                                        | Miss mandatory parameter.                           | Required parameters are missing.                                             |
| 404       | InvalidZoneId.NotFound                                  | Specified value of ZoneId is not exists.            | The specified zone does not exist.                                           |
| 404       | InvalidZoneId.NotFound                                  | Can not find ZoneId for allocated ip.               | The zone of the IP address is incorrect.                                     |
| 400       | QuotaExceeded.BandwidthPackageIps                       | The specified ipCount exceeded quota.               | The IP address quota has been reached. To increase the quota, open a ticket. |
| 400       | InvalidParameter.Name.Malformed                         | The specified Name is not valid.                    | The specified name is invalid.                                               |
| 400       | InvalidParameter.Description.Malformed                  | The specified Description is not valid.             | The specified description is invalid.                                        |
| 400       | ZONE_NO_AVAILABLE_IP                                    | The Zone have no available ip.                      | There are no available IP addresses in this zone.                            |
| 400       | InvalidParameter.BandwidthPackage.n.ISP.ValueNotSupport | The specified ISP of BandwidthPackage is not valid. | The ISP of the shared bandwidth package is invalid.                          |
| 400       | InvalidNatGatewayId.NotFound                            | The NatGatewayId not exist.                         | The specified NatGateway Id is invalid.                                      |
| 400       | VswitchStatusError                                      | The VSwitch is creating .                           | The VSwitch is being created.                                                |
| 400       | VpcStatusError                                          | The Vpc is creating .                               | The VPC is being created.                                                    |
| 400       | InvalidParameter.Spec.ValueNotSupported                 | The specified Spec is not valid.                    | The specification is invalid.                                                |

[View the error codes of the product](#)

## 13.2 CreateBandwidthPackage

Creates a NAT bandwidth package.

A NAT Gateway package includes a group of public IP addresses and a shared bandwidth. You can create up to four NAT bandwidth packages for a NAT Gateway.

A NAT bandwidth package includes:

- A shared bandwidth
- A group of public IP addresses



### Note:

This API can be called only if you purchased a NAT bandwidth package before January 26, 2018. If your account does not have a NAT bandwidth package purchased before January 26, 2018, you need to attach an EIP.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter    | Type    | Required? | Example value          | Description                                                                           |
|--------------|---------|-----------|------------------------|---------------------------------------------------------------------------------------|
| Action       | String  | Yes       | CreateBandwidthPackage | The name of this action. Value: CreateBandwidthPackage                                |
| Bandwidth    | Integer | Yes       | 5                      | The bandwidth of the NAT bandwidth package. Value range: 5 to 1000.                   |
| IpCount      | Integer | Yes       | 2                      | The number of public IP addresses in the NAT bandwidth package. Value range: 1 to 50. |
| NatGatewayId | String  | Yes       | ngw-7mwb327j1          | The ID of the NAT Gateway to be used.                                                 |

| Parameter          | Type   | Required? | Example value                            | Description                                                                                                                                                                                                                                                   |
|--------------------|--------|-----------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RegionId           | String | Yes       | cn-hangzhou                              | The region to which the NAT Gateway belongs.<br>To query the region ID, call DescribeRegions.                                                                                                                                                                 |
| ClientToken        | String | No        | she11234556664566                        | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length.                                                                           |
| Description        | String | No        | The description of the bandwidth package | The description of the NAT bandwidth package.<br>The description must be 2 to 256 characters in length. The description must start with a letter. It cannot start with <code>http://</code> or <code>https://</code> .                                        |
| ISP                | String | No        | BGP                                      | Valid value: BGP.                                                                                                                                                                                                                                             |
| InternetChargeType | String | No        | PayByBandwidth                           | The Internet billing method.<br>Valid values:<br><ul style="list-style-type: none"> <li>PayByTraffic: Billing based on traffic</li> </ul>                                                                                                                     |
| Name               | String | No        | The name of the bandwidth package        | The name of the NAT bandwidth package.<br>The name must be 2 to 128 characters in length and can letters, numbers, underscores (_), and hyphens (-). The name must start with a letter, but cannot start with <code>http://</code> or <code>https://</code> . |

| Parameter | Type   | Required? | Example value | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------|--------|-----------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Zone      | String | No        | cn-shanghai-a | <p>The zone of the NAT bandwidth package.</p> <p>If this parameter is not specified, the system randomly allocates a zone.</p> <div>  <b>Note:</b><br/>           If the NAT bandwidth package and the backend ECS instance are not in the same zone, the latency of the connection between them is unchanged; if they are in the same zone, the latency of the connection between them can be reduced.         </div> |

#### Response parameters

| Parameter          | Type   | Example value                        | Description                          |
|--------------------|--------|--------------------------------------|--------------------------------------|
| BandwidthPackageId | String | bwp-s6lmotmkk                        | The ID of the NAT bandwidth package. |
| RequestId          | String | 54ED4074-3F89-4F11-B166-837DD3E20FE3 | The ID of the request.               |

#### Examples

##### Request example

```
https://vpc.aliyuncs.com/?Action=CreateBandwidthPackage
&Bandwidth=5
&IpCount=2
&NatGatewayId=ngw-7mwb327j1
&RegionId=cn-hangzhou
&<CommonParameters>
```

##### Response example

###### • XML format

```
<CreateBandwidthPackageResponse>
```

```
< RequestId > 2315DEB7 - 5E92 - 423A - 91F7 - 4C1EC9AD97 C3 </
RequestId >
< BandwidthPackageId > bwp - s6lmtmkk </ BandwidthPackageId >
</ CreateBandwidthPackageResponse >
```

• JSON format

```
{
  "BandwidthPackageId": "bwp - s6lmtmkk",
  "RequestId": "54ED4074 - 3F89 - 4F11 - B166 - 837DD3E20F E3"
}
```

## Error codes

| HTTP status code | Error code                                      | Error message                                            | Description                                                                                                                     |
|------------------|-------------------------------------------------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound                        | The specified RegionId does not exist in our records.    | The specified region ID does not exist.                                                                                         |
| 400              | MissingParameter                                | Miss mandatory parameter.                                | The required parameters are missing.                                                                                            |
| 404              | InvalidZoneId.NotFound                          | Specified value of ZoneId is not exists.                 | The specified zone does not exist.                                                                                              |
| 404              | InvalidZoneId.NotFound                          | Can not find ZoneId for allocated ip.                    | The specified zone of the IP address is incorrect.                                                                              |
| 400              | QuotaExceeded.BandwidthPackageIps               | The specified ipCount exceeded quota.                    | The quota of IP addresses has been reached. To increase the quota, open a ticket.                                               |
| 400              | QuotaExceeded.BandwidthPackageCountOnNatGateway | BandwidthPackage count limit on one NatGateway exceeded. | The quota of shared bandwidth packages has been reached. You can create up to four shared bandwidth packages for a NAT Gateway. |
| 400              | InvalidParameter.Name.Malformed                 | The specified Name is not valid.                         | The name is invalid.                                                                                                            |
| 400              | InvalidParameter.Description.Malformed          | The specified Description is not valid.                  | The description is invalid.                                                                                                     |

| HTTP status code | Error code                                                      | Error message                                       | Description                                         |
|------------------|-----------------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|
| 400              | InvalidParameter.<br>BandwidthPackage.n.ISP.<br>ValueNotSupport | The specified ISP of BandwidthPackage is not valid. | The ISP of the shared bandwidth package is invalid. |
| 400              | ZONE_NO_AVAILABLE_IP                                            | The Zone have no available ip.                      | There are no available IP addresses in this zone.   |
| 404              | NATGW_NOT_EXIST                                                 | The NatGateway not exist.                           | The specified NAT Gateway does not exist.           |

[See common error codes](#)

## 13.3 DescribeBandwidthPackages

Queries NAT bandwidth packages in a region.



### Note:

This API can be called only if you purchased a NAT bandwidth package before January 26, 2018. If your account does not have a NAT bandwidth package purchased before January 26, 2018, you need to associate an EIP. For more information, see [#unique\\_80](#).

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

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

| Parameter          | Type    | Required ? | Example value              | Description                                                                                   |
|--------------------|---------|------------|----------------------------|-----------------------------------------------------------------------------------------------|
| RegionId           | String  | Yes        | cn-hangzhou                | The region to which the NAT Gateway belongs.<br>To query the region ID, call DescribeRegions. |
| BandwidthPackageId | String  | No         | bwp-bp1xea10o8qxbw8lkw2xa1 | The ID of the NAT bandwidth package.                                                          |
| NatGatewayId       | String  | No         | ngw-bp1uewa15k4iy5770ya89  | The ID of the NAT Gateway.                                                                    |
| PageNumber         | Integer | No         | 10                         | The number of pages to return.<br>Default value: 1 .                                          |
| PageSize           | Integer | No         | 10                         | The number of rows per page.<br>Maximum value: 50 . Default value: 10 .                       |

## Response parameters

| Parameter           | Type   | Example value       | Description                                                                                              |
|---------------------|--------|---------------------|----------------------------------------------------------------------------------------------------------|
| BandwidthPackages   | N/A    | N/A                 | A list of NAT bandwidth packages.                                                                        |
| └Bandwidth          | String | 5                   | The bandwidth value in Mbps. Valid values: 5 to 5000.                                                    |
| └BandwidthPackageId | String | bwp-xxoo123         | The ID of the NAT bandwidth package.                                                                     |
| └BusinessStatus     | String | Normal              | The status of the bandwidth package.<br>Valid values: Normal   FinancialLocked   SecurityLocked.         |
| └CreationTime       | String | 2017-06-08T12:20:55 | The time at which the bandwidth package was created.<br>Standard: ISO861. Format: UTC, YYYY-MM-DDThh:mmZ |
| └Description        | String | test123             | The description of the bandwidth package.                                                                |

| Parameter           | Type    | Example value             | Description                                                                                                              |
|---------------------|---------|---------------------------|--------------------------------------------------------------------------------------------------------------------------|
| ↳ISP                | String  | BGP                       | Valid value: BGP.                                                                                                        |
| ↳InstanceChargeType | String  | PostPaid                  | The billing method of the instance. Currently, only the Pay-As-You-Go billing method is supported. Valid value: PostPaid |
| ↳InternetChargeType | String  | PayByBandwidth            | The Internet billing method. Valid values:<br>· PayByTraffic: Billing based on traffic                                   |
| ↳IpCount            | String  | 1                         | The number of public IP addresses in the NAT bandwidth package. Value range: 1 to 50.                                    |
| ↳Name               | String  | xxxxxxx                   | The name of the NAT Gateway.                                                                                             |
| ↳NatGatewayId       | String  | ngw-xxoo123               | The ID of the NAT Gateway.                                                                                               |
| ↳PublicIpAddresses  | N/A     | N/A                       | The IP addresses in the bandwidth package.                                                                               |
| ↳AllocationId       | String  | eip-2zeerraiwb7uj6i0d0fo3 | The allocation ID.                                                                                                       |
| ↳ApAccessEnabled    | Boolean | true                      | Indicates whether AP access is enabled.                                                                                  |
| ↳IpAddress          | String  | 116.62.222.28             | The IP address.                                                                                                          |
| ↳UsingStatus        | String  | Available                 | The usage status.                                                                                                        |
| ↳RegionId           | String  | cn-hangzhou               | The region ID.                                                                                                           |
| ↳Status             | String  | Available                 | The status of the bandwidth package.                                                                                     |
| ↳ZoneId             | String  | cn-shanghai-a             | The zone of the NAT bandwidth package.                                                                                   |
| TotalCount          | Integer | 10                        | The number of queried entries.                                                                                           |
| PageNumber          | Integer | 10                        | The current page number.                                                                                                 |
| PageSize            | Integer | 10                        | The number of entries per page.                                                                                          |

| Parameter | Type   | Example value                         | Description            |
|-----------|--------|---------------------------------------|------------------------|
| RequestId | String | 4EC47282-1B74-4534-BD0E-403F3EE64CAF" | The ID of the request. |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DescribeBandwidthPackets
&RegionId=cn-hangzhou
&<CommonParameters>
```

### Response example

- XML format

```
<DescribeBandwidthPacketsResponse>
  <PageNumber>1</PageNumber>
  <TotalCount>1</TotalCount>
  <BandwidthPackets>
    <BandwidthPackage>
      <Description />
      <IpCount>2</IpCount>
      <ISP>BGP</ISP>
      <ZoneId>cn-hangzhou-b</ZoneId>
      <InternetChargeType>PayByTraffic</InternetChargeType>
      <NatGatewayId>ngw-bp1uewa15k4iy5770ya89</NatGatewayId>
      <Name />
      <CreationTime>2018-03-06T07:33:51Z</CreationTime>
      <Status>Available</Status>
      <BandwidthPackageId>bwp-bp1xea10o8qwx8lkw2xa1</BandwidthPackageId>
      <BusinessStatus>Normal</BusinessStatus>
      <RegionId>cn-hangzhou</RegionId>
      <InstanceChargeType>PostPaid</InstanceChargeType>
      <PublicIpAddresses>
        <PublicIpAddress>
          <IpAddress>118.31.xx.xx</IpAddress>
          <AllocationId>nateip-bp1jb1uijvm9o8z30ejqp</AllocationId>
          <UsingStatus>Idle</UsingStatus>
        </PublicIpAddress>
        <PublicIpAddress>
          <IpAddress>118.31.xx.xx</IpAddress>
          <AllocationId>nateip-bp1dt4hpe8847yj4oh10w</AllocationId>
          <UsingStatus>UsedBySnatTable</UsingStatus>
        </PublicIpAddress>
      </PublicIpAddresses>
      <Bandwidth>5</Bandwidth>
    </BandwidthPackage>
  </BandwidthPackets>
```

```
< PageSize > 10 </ PageSize >
</ DescribeBandwidthPackagesResponse >
```

• JSON format

```
{
  "PageNumber": 1,
  "TotalCount": 1,
  "BandwidthPackages": {
    "BandwidthPackage": [
      {
        "Description": "",
        "IpCount": "2",
        "ISP": "BGP",
        "ZoneId": "cn-hangzhou-b",
        "InternetChargeType": "PayByTraffic",
        "NatGatewayId": "ngw-bp1uewa15k4iy5770ya89",
        "Name": "",
        "CreationTime": "2018-03-06T07:33:51Z",
        "Status": "Available",
        "BandwidthPackageId": "bwp-bp1xea10o8qwx8lkw2xa1",
        "BusinessStatus": "Normal",
        "RegionId": "cn-hangzhou",
        "InstanceChargeType": "PostPaid",
        "PublicIpAddresses": {
          "PublicIpAddress": [
            {
              "IpAddress": "118.31.xx.xx",
              "AllocationId": "nateip-bp1jbluijvm9o8z30ejqp",
              "UsingStatus": "Idle"
            },
            {
              "IpAddress": "118.31.xx.xx",
              "AllocationId": "nateip-bp1dt4hpe8847yj4oh10w",
              "UsingStatus": "UsedBySnatTable"
            }
          ]
        },
        "Bandwidth": "5"
      }
    ]
  },
  "PageSize": 10,
  "RequestId": "8909013D-4A64-41A6-93E6-E3FD08A3EA FE"
}
```

## Error codes

| HTTP status code | Error code               | Error message                                         | Description                             |
|------------------|--------------------------|-------------------------------------------------------|-----------------------------------------|
| 404              | InvalidRegionId.NotFound | The specified RegionId does not exist in our records. | The specified region ID does not exist. |

[See common error codes](#)

## 13.4 ModifyBandwidthPackageSpec

Modifies the bandwidth of a NAT bandwidth package.



### Note:

This API can be called only if you purchased a NAT bandwidth package before January 26, 2018. If your account does not have a NAT bandwidth package purchased before January 26, 2018, you need to associate an EIP. For more information, see [#unique\\_80](#).

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter          | Type    | Required? | Example value              | Description                                                                                          |
|--------------------|---------|-----------|----------------------------|------------------------------------------------------------------------------------------------------|
| Action             | String  | Yes       | ModifyBandwidthPackageSpec | The name of this action. Value: ModifyBandwidthPackageSpec                                           |
| BandWidth          | Integer | Yes       | 5                          | The bandwidth of the NAT bandwidth package. Value range: 5 to 1000.                                  |
| BandwidthPackageId | String  | Yes       | bwp-s6lmtmkk               | The ID of the NAT bandwidth package.                                                                 |
| RegionId           | String  | Yes       | cn-hangzhou                | The region to which the NAT bandwidth package belongs. To query the region ID, call DescribeRegions. |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 079874CD-AEC1-43E6-AC03-ADD96B6E4907 | The ID of the request. |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=ModifyBandwidthPackageSpec
&Bandwidth=5
&BandwidthPackageId=bwp-s6lmtmkk
&RegionId=cn-hangzhou
&<CommonParameters>
```

### Response example

- XML format

```
<ModifyBandwidthPackageSpecResponse>
  <RequestId>2315DEB7-5E92-423A-91F7-4C1EC9AD97C3</
  RequestId>
</ModifyBandwidthPackageSpecResponse>
```

- JSON format

```
{
  "RequestId": "54ED4074-3F89-4F11-B166-837DD3E20FE3"
}
```

### Error codes

| HTTP status code | Error code                         | Error message                                             | Description                                                          |
|------------------|------------------------------------|-----------------------------------------------------------|----------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound           | The specified RegionId does not exist in our records.     | The specified region ID does not exist.                              |
| 404              | InvalidBandwidth.ValueNotSupported | The specified value of Bandwidth not supported.           | The specified peak bandwidth is not supported.                       |
| 404              | BandwidthPackage.FinancialLocked   | The specified BandwidthPackage has been Financial Locked. | The bandwidth package is locked due to insufficient account balance. |

[See common error codes](#)

## 13.5 ModifyBandwidthPackageAttribute

Modifies the name and description of a NAT bandwidth package.



**Note:**

This API can be called only if you purchased a NAT bandwidth package before January 26, 2018. If your account does not have a NAT bandwidth package purchased before January 26, 2018, you need to associate an EIP. For more information, see [#unique\\_80](#).

### Request parameters

| Parameter          | Type   | Required? | Example value                   | Description                                                                                                                                                                                                  |
|--------------------|--------|-----------|---------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action             | String | Yes       | ModifyBandwidthPackageAttribute | The name of the action. Value: ModifyBandwidthPackageAttribute                                                                                                                                               |
| BandwidthPackageId | String | Yes       | bwp-s6lmtmkk                    | The ID of the NAT bandwidth package.                                                                                                                                                                         |
| RegionId           | String | Yes       | cn-hangzhou                     | The ID of the region to which the NAT bandwidth package belongs.<br>To query the region ID, call DescribeRegions.                                                                                            |
| Description        | String | No        | xxxxxxxx                        | The description of the NAT bandwidth package.<br>The description must be 2 to 256 characters in length.<br>It must start with a letter. It cannot start with <code>http://</code> or <code>https://</code> . |

| Parameter | Type   | Required? | Example value         | Description                                                                                                                                                                                                                                                                      |
|-----------|--------|-----------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name      | String | No        | NAT bandwidth package | The name of the NAT bandwidth package. The name must be 2 to 128 characters in length and can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter. It cannot start with <code>http ://</code> or <code>https ://</code> . |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | DFDDD35D-3F29-4E15-AA28-53F5341F9599 | The ID of the request. |

### Examples

#### Request example

```
https :// vpc . aliyuncs . com /? Action = ModifyBand widthPacka
geAttribut e
& BandwidthP ackageId = bwp - s6lmotmkk
& RegionId = cn - hangzhou
&< CommonPara meters >
```

#### Response example

- XML format

```
< ModifyBand widthPacka geAttribut eResponse >
  < RequestId > 2315DEB7 - 5E92 - 423A - 91F7 - 4C1EC9AD97 C3 </
  RequestId >
</ ModifyBand widthPacka geAttribut eResponse >
```

- JSON format

```
{
  " RequestId ":" 54ED4074 - 3F89 - 4F11 - B166 - 837DD3E20F E3 "
```

}

## Error codes

| HTTP status code | Error code                             | Error message                                                   | Description                                  |
|------------------|----------------------------------------|-----------------------------------------------------------------|----------------------------------------------|
| 404              | InvalidRegionId.NotFound               | The specified RegionId does not exist in our records.           | The specified region ID does not exist.      |
| 404              | InvalidBandwidthPackageId.NotFound     | The specified bandwidthPackageId does not exist in our records. | The shared bandwidth package does not exist. |
| 400              | InvalidParameter.Name.Malformed        | The specified Name is not valid.                                | The name is invalid.                         |
| 400              | InvalidParameter.Description.Malformed | The specified Description is not valid.                         | The description is invalid.                  |

[See common errors](#)

## 13.6 DescribeNatGateways

Queries one or more NAT Gateways in a region.

## Request parameters

| Parameter | Type   | Required? | Example value               | Description                                                                                          |
|-----------|--------|-----------|-----------------------------|------------------------------------------------------------------------------------------------------|
| Action    | String | Yes       | DescribeNatGateways         | The name of the action. Valid value: DescribeNatGateways                                             |
| RegionId  | String | Yes       | cn-hangzhou                 | The ID of the region to which the NAT Gateway belongs. To query the region ID, call DescribeRegions. |
| Name      | String | No        | The name of the NAT Gateway | The name of the NAT Gateway.                                                                         |

| Parameter    | Type    | Required ? | Example value             | Description                                                                |
|--------------|---------|------------|---------------------------|----------------------------------------------------------------------------|
| NatGatewayId | String  | No         | ngw-bp1uewa15k4iy5770ya89 | The ID of the NAT Gateway.                                                 |
| PageNumber   | Integer | No         | 10                        | The number of pages to return.<br>Default value: 1 .                       |
| PageSize     | Integer | No         | 1                         | The number of entries per page. Maximum value: 50 .<br>Default value: 10 . |
| VpcId        | String  | No         | vpc-bp15zckdt37pq72zvw3   | The ID of the VPC.                                                         |

## Response parameters

| Parameter             | Type    | Example value | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|-----------------------|---------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| NatGateways           | N/A     | N/A           | A list of NAT Gateways.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| └─AutoPay             | Boolean | true          | <p>Indicates whether automatic payment is enabled. Valid values:</p> <ul style="list-style-type: none"> <li>· false: Automatic payment is not enabled. After an order is generated, you need to go to the order center to complete the payment.</li> <li>· true: Automatic payment is enabled.</li> </ul> <div>  <b>Note:</b><br/>           This parameter is required when the InstanceChargeType value is PrePaid.         </div> |
| └─BandwidthPackageIds | N/A     | bwp-s6lmotmkk | The IDs of the bandwidth packages attached to the NAT Gateway.                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

| Parameter                       | Type   | Example value             | Description                                                                                                                                                                                                                  |
|---------------------------------|--------|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>BusinessStatus</code>     | String | Normal                    | The status of the NAT Gateway: <ul style="list-style-type: none"> <li>Normal: Normal</li> <li>FinancialLocked: Locked due to insufficient account balance</li> <li>SecurityLocked: Locked due to security reasons</li> </ul> |
| <code>CreationTime</code>       | String | 2017-06-08T12:20:55       | The time at which the NAT Gateway was created. Standard: ISO8601. Format: YYYY-MM-DDThh:mmZ                                                                                                                                  |
| <code>Description</code>        | String | NAT                       | The description of the NAT Gateway.                                                                                                                                                                                          |
| <code>ExpiredTime</code>        | String | 2017-08-26T16:00Z         | The time at which the NAT Gateway is to expire.                                                                                                                                                                              |
| <code>ForwardTableIds</code>    | N/A    | ftb-uf6gj3mhsg94qsqstfqsx | The IDs of port forwarding tables.                                                                                                                                                                                           |
| <code>InstanceChargeType</code> | String | PostPaid                  | The billing method of the instance. Currently, only the Pay-As-You-Go billing method is supported. Valid value:<br>PostPaid: Pay-As-You-Go                                                                                   |
| <code>IpLists</code>            |        |                           | The EIPs attached to the NAT Gateway.                                                                                                                                                                                        |
| <code>IpAddress</code>          | String | 116.62.222.28             | The IP address of the EIP.                                                                                                                                                                                                   |
| <code>Name</code>               | String | The name of the instance  | The name of the NAT Gateway.                                                                                                                                                                                                 |
| <code>NatGatewayId</code>       | String | ngw-bp1047e2d4z7kf2kiy25t | The ID of the NAT Gateway.                                                                                                                                                                                                   |
| <code>RegionId</code>           | String | cn-hangzhou               | The ID of the region to which the NAT Gateway belongs.                                                                                                                                                                       |
| <code>SnatTableIds</code>       |        | stb-uf6dalcd0krz423pv8mq  | The ID of the SNAT table of the NAT Gateway.                                                                                                                                                                                 |
| <code>Spec</code>               | String | Small                     | The specification of the NAT Gateway.                                                                                                                                                                                        |

| Parameter         | Type    | Example value                        | Description                                                                                                                                                                               |
|-------------------|---------|--------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>└Status</b>    | String  | Initiating                           | The status of the NAT Gateway.<br>Valid values: <ul style="list-style-type: none"> <li>Initiating: initiating</li> <li>Available: available</li> <li>Pending: being configured</li> </ul> |
| <b>└VpcId</b>     | String  | vpc-bp15zckdt37pq72zvw3              | The ID of the VPC.                                                                                                                                                                        |
| <b>TotalCount</b> | Integer | 10                                   | The number of queried entries.                                                                                                                                                            |
| <b>PageNumber</b> | Integer | 10                                   | The current page number.                                                                                                                                                                  |
| <b>PageSize</b>   | Integer | 10                                   | The number of entries per page.                                                                                                                                                           |
| <b>RequestId</b>  | String  | 4EC47282-1B74-4534-BD0E-403F3EE64CAF | The ID of the request.                                                                                                                                                                    |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DescribeNatGateways
&RegionId=cn-hangzhou
&<CommonParameters>
```

### Response example

#### • XML format

```
<DescribeNatGatewaysResponse>
  <PageNumber>1</PageNumber>
  <TotalCount>1</TotalCount>
  <PageSize>10</PageSize>
  <RequestId>1207C80C-7CAB-4874-A9A0-D19EC9F35490</RequestId>
  <NatGatewayList>
    <NatGateway>
      <Description>/>
      <Spec>Small</Spec>
      <IpList>
        <IpList>
          <IpAddress>118.31.65.181</IpAddress>
          <AllocationId>eip-bp1xyg5ipmh3nledxywx</AllocationId>
          <UsingStatus>UsedBySnatTable</UsingStatus>
        </IpList>
        <IpList>
          <IpAddress>47.97.187.34</IpAddress>
          <AllocationId>eip-bp19eue77u20cffjcu4e</AllocationId>
          <UsingStatus>UsedByForwardTable</UsingStatus>
        </IpList>
      </IpList>
    </NatGateway>
  </NatGatewayList>
</DescribeNatGatewaysResponse>
```

```

    </ IpList >
  </ IpLists >
  < ForwardTab leIds >
    < ForwardTab leId > ftb - bp15o9aylj 19vfvgttnzo y </
ForwardTab leId >
    </ ForwardTab leIds >
    < VpcId > vpc - bp15k6sx6f hdz2jw4daz 0 </ VpcId >
    < NatGateway Id > ngw - bp1047e2d4 z7kf2kiy25 t </
NatGateway Id >
    < CreationTi me > 2018 - 01 - 10T09 : 48 : 29Z </ CreationTi
me >
    < BandwidthP ackageIds />
    < Name />
    < Status > Available </ Status >
    < BusinessSt atus > Normal </ BusinessSt atus >
    < RegionId > cn - hangzhou </ RegionId >
    < SnatTableI ds >
      < SnatTableI d > stb - bp1tyr0o48 w6wymur4gv n </
SnatTableI d >
      </ SnatTableI ds >
      < InstanceCh argeType > PostPaid </ InstanceCh argeType >
    </ NatGateway >
  </ NatGateway s >
</ DescribeNa tGatewaysR esponse >

```

• JSON format

```

{
  " PageNumber ": 1 ,
  " TotalCount ": 1 ,
  " PageSize ": 10 ,
  " RequestId ":" 1207C80C - 7CAB - 4874 - A9A0 - D19EC9F354 90 ",
  " NatGateway s ":{
    " NatGateway ":[
      {
        " Descriptio n ":"",
        " Spec ":" Small ",
        " IpLists ":{
          " IpList ":[
            {
              " IpAddress ":" 118 . 31 . 65 . 181 ",
              " Allocation Id ":" eip - bp1xyg5ipm h3nledxywx f ",
              " UsingStatu s ":" UsedBySnat Table "
            },
            {
              " IpAddress ":" 47 . 97 . 187 . 34 ",
              " Allocation Id ":" eip - bp19eue77u 20cffjcu4e a ",
              " UsingStatu s ":" UsedByForw ardTable "
            }
          ]
        },
        " ForwardTab leIds ":{
          " ForwardTab leId ":[
            " ftb - bp15o9aylj 19vfvgttnzo y "
          ]
        },
        " VpcId ":" vpc - bp15k6sx6f hdz2jw4daz 0 ",
        " NatGateway Id ":" ngw - bp1047e2d4 z7kf2kiy25 t ",
        " CreationTi me ":" 2018 - 01 - 10T09 : 48 : 29Z ",
        " BandwidthP ackageIds ":{
          " BandwidthP ackageId ":[ ]
        },
        " Name ":"",

```

```
" Status ":" Available ",
" BusinessStatus ":" Normal ",
" RegionId ":" cn - hangzhou ",
" SnatTableIds ":{
  " SnatTableId ":[
    " stb - bp1tyr0o48 w6wymur4gv n "
  ]
},
" InstanceChargeType ":" PostPaid "
}
]
}
}
```

#### Error codes

| HTTP status code | Error code               | Error message                                         | Description                             |
|------------------|--------------------------|-------------------------------------------------------|-----------------------------------------|
| 404              | InvalidRegionId.NotFound | The specified RegionId does not exist in our records. | The specified region ID does not exist. |

[See common error codes](#)

## 13.7 AddBandwidthPackageIps

Adds public IP addresses to a NAT bandwidth package.



#### Note:

This API can be called only if you purchased a NAT bandwidth package before January 26, 2018. If your account does not have a NAT bandwidth package purchased before January 26, 2018, you need to associate an EIP. For more information, see [#unique\\_80](#).

#### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter          | Type   | Required? | Example value                       | Description                                                                                                                                                                      |
|--------------------|--------|-----------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action             | String | Yes       | AddBandwidthPackageIps              | The name of this action. Value: AddBandwidthPackageIps                                                                                                                           |
| BandwidthPackageId | String | Yes       | bwp-s6lmotmkk                       | The ID of the NAT bandwidth package.                                                                                                                                             |
| IpCount            | String | Yes       | 2                                   | The number of public IP addresses in the NAT bandwidth package. Value range: 1 to 50.                                                                                            |
| RegionId           | String | Yes       | cn-hangzhou                         | The region to which the NAT bandwidth package belongs. To query the region ID, call DescribeRegions.                                                                             |
| ClientToken        | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length. |

## Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | EC0B5C51-7F40-44D6-A642-1DE764B547EC | The ID of the request. |

## Examples

## Request example

```
https://vpc.aliyuncs.com/?Action=AddBandwidthPackageIps
&BandwidthPackageId=bwp-s6lmotmkk
&IpCount=2
&RegionId=cn-hangzhou
```

```
&< CommonParameters >
```

### Response example

- XML format

```
< AddBandwidthPackageResponse >
  < RequestId > 2315DEB7 - 5E92 - 423A - 91F7 - 4C1EC9AD97 C3 </
    RequestId >
</ AddBandwidthPackageResponse >
```

- JSON format

```
{
  "RequestId": "2315DEB7 - 5E92 - 423A - 91F7 - 4C1EC9AD97 C3"
}
```

### Error codes

| HTTP status code | Error code                        | Error message                                           | Description                                                                       |
|------------------|-----------------------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound          | The specified RegionId does not exist in our records.   | The specified region ID does not exist.                                           |
| 400              | InvalidIpCount.ValueNotSupported  | The specified value of IpCount not supported.           | The IpCount value is invalid.                                                     |
| 400              | QuotaExceeded.BandwidthPackageIps | The specified ipCount exceeded quota.                   | The quota of IP addresses has been reached. To increase the quota, open a ticket. |
| 404              | BandwidthPackage.FinancialLocked  | The specified BandwidthPackage has been Financial Lock. | The bandwidth package is locked due to insufficient account balance.              |

[See common error codes](#)

## 13.8 ModifyNatGatewaySpec

Modifies the specification of a NAT Gateway.

The NAT Gateway is billed according to the largest specification used in a day.

A NAT Gateway specification determines the performance metrics (Max Connections and Connections Per Second) of SNAT, but does not relate to data throughput.

The relationship between a NAT Gateway specification and its corresponding performance metrics is as follows:

| Specification | Max Connections | Connections Per Second (CPS) |
|---------------|-----------------|------------------------------|
| Small         | 10 thousand     | 1 thousand                   |
| Medium        | 50,000          | 5,000                        |
| Large         | 200,000         | 10,000                       |

## Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK example codes, and quickly search for APIs.

## Request parameters

| Parameter    | Type   | Required? | Example value             | Description                                                                                                                                                                    |
|--------------|--------|-----------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action       | String | Yes       | ModifyNatGatewaySpec      | The action to perform. Valid value:<br>ModifyNatGatewaySpec                                                                                                                    |
| NatGatewayId | String | Yes       | ngw-bp1uewa15k4iy5770ya89 | The ID of the NAT Gateway.                                                                                                                                                     |
| RegionId     | String | Yes       | cn-hangzhou               | The region to which the NAT Gateway belongs.<br>To query the region ID, call DescribeRegions.                                                                                  |
| Spec         | String | Yes       | Small                     | The specification of the NAT Gateway. Valid values: <ul style="list-style-type: none"><li>Small (default value): small</li><li>Middle : medium</li><li>Large : large</li></ul> |

| Parameter   | Type   | Required? | Example value       | Description                                                                                                                                                                |
|-------------|--------|-----------|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ClientToken | String | No        | SHA234js121223xxxxx | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It cannot exceed 64 ASCII characters. |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | DBD4E4A2-786E-4BD2-8EB6-107FFC2B5B7D | The ID of the request. |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=ModifyNatGatewaySpec&NatGatewayId=ngw-bp1uewa15k4iy5770ya89&RegionId=cn-hangzhou&Spec=Small&<CommonParameters>
```

#### Response example

- XML format

```
<ModifyNatGatewaySpecResponse>
  <RequestId>DBD4E4A2-786E-4BD2-8EB6-107FFC2B5B7D</RequestId>
</ModifyNatGatewaySpecResponse>
```

- JSON format

```
{
  "RequestId": "DBD4E4A2-786E-4BD2-8EB6-107FFC2B5B7D"
```

```
}
```

## Error codes

| HTTP status code | Error code                              | Error message                                             | Description                                                             |
|------------------|-----------------------------------------|-----------------------------------------------------------|-------------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound                | The specified RegionId does not exist in our records.     | The specified region ID does not exist.                                 |
| 404              | InvalidNatGatewayId.NotFound            | The specified NatGatewayId does not exist in our records. | The specified NatGatewayId does not exist.                              |
| 400              | NATGW_MODIFY_SPEC_SAME                  | The specified Spec is same with now.                      | The specification you entered is the same as the current specification. |
| 400              | InvalidParameter.Spec.ValueNotSupported | The specified Spec is not valid.                          | The specification is invalid.                                           |

[See common error codes](#)

## 13.9 RemoveBandwidthPackageIps

Removes public IP addresses from a NAT bandwidth package.

Before you call `RemoveBandwidthPackageIps` to delete public IP addresses, note the following:

- You cannot delete all public IP addresses in the NAT bandwidth package.
- You cannot delete an IP address that is not included in the target NAT bandwidth package.
- You cannot delete an IP address occupied by a DNAT entry or SNAT entry.



### Note:

This API can be called only if you purchased a NAT bandwidth package before January 26, 2018. If your account does not have a NAT bandwidth package purchased before January 26, 2018, you need to associate an EIP. For more information, see [#unique\\_80](#).

## Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter          | Type   | Required? | Example value             | Description                                                                                                                                                                |
|--------------------|--------|-----------|---------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action             | String | Yes       | RemoveBandwidthPackageIps | The name of the action. Value: RemoveBandwidthPackageIps                                                                                                                   |
| BandwidthPackageId | String | Yes       | bwp-s6lmtmkk              | The ID of the NAT bandwidth package.                                                                                                                                       |
| RegionId           | String | Yes       | cn-hangzhou               | The ID of the region to which the NAT bandwidth package belongs.<br>To query the region ID, call DescribeRegions.                                                          |
| RemovedIpAddresses | String | Yes       | 116.62.222.28             | The ID of the public IP address to be deleted. Value range of n: 1 to 20.                                                                                                  |
| ClientToken        | String | No        | SHAwW112344jhsw233        | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It cannot exceed 64 ASCII characters. |

## Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 7D275A59-1EB0-4775-8A20-2A47055EAC5C | The ID of the request. |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=RemoveBandwidthPackageIps
&BandwidthPackageId=bwp-s6lmtmkk
&RegionId=cn-hangzhou
&RemovedIpAddresses.1=116.62.222.28
&<CommonParameters>
```

### Response example

- XML format

```
<RemoveBandwidthPackageIpsResponse>
  <RequestId>7D275A59-1EB0-4775-8A20-2A47055EAC5C</RequestId>
</RemoveBandwidthPackageIpsResponse>
```

- JSON format

```
{
  "RequestId": "7D275A59-1EB0-4775-8A20-2A47055EAC5C"
}
```

### Error codes

| HTTP status code | Error code                         | Error message                                                                            | Description                                                                                                 |
|------------------|------------------------------------|------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound           | The specified RegionId does not exist in our records.                                    | The specified region ID does not exist.                                                                     |
| 404              | invalidRemovedIpAddresses.NotFound | Some of the specified value of RemovedIpAddress not found in specified BandwidthPackage. | Some IP addresses in the IP address list are not in the shared bandwidth package. Check these IP addresses. |
| 400              | InvalidIpCount.ValueNotSupported   | Can not remove all ips of the bandwidthPackage.                                          | You cannot remove all IP addresses in the bandwidth package.                                                |
| 400              | InvalidRemovedIpAddresses.NotFound | Some of remove ip is not natPublicIp.                                                    | Some specified IP addresses are not public IP addresses of the NAT Gateway and cannot be removed.           |
| 400              | DependencyViolation.ForwardEntry   | The ip has been used by ForwardEntry.                                                    | The IP address is being used by a forwarding rule. Delete the rule first.                                   |

| HTTP status code | Error code                               | Error message                                                   | Description                                                          |
|------------------|------------------------------------------|-----------------------------------------------------------------|----------------------------------------------------------------------|
| 400              | Dependency Violation.<br>SnatEntry       | The ip has been used by SnatEntry.                              | The IP address is being used by an SNAT rule. Delete the rule first. |
| 404              | BandwidthP<br>ackage.<br>FinancialLocked | The specified BandwidthP<br>ackage has been Financcail<br>Lock. | The bandwidth package is locked due to insufficient balance.         |

[See common error codes](#)

## 13.10 ModifyNatGatewayAttribute

Modifies the name and description of a NAT Gateway.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter    | Type   | Required ? | Example value             | Description                                                                                   |
|--------------|--------|------------|---------------------------|-----------------------------------------------------------------------------------------------|
| Action       | String | Yes        | ModifyNatGatewayAttribute | The name of this action. Value: ModifyNatGatewayAttribute                                     |
| NatGatewayId | String | Yes        | ngw-xxoo123               | The ID of the NAT Gateway.                                                                    |
| RegionId     | String | Yes        | cn-hangzhou               | The region to which the NAT Gateway belongs.<br>To query the region ID, call DescribeRegions. |

| Parameter   | Type   | Required? | Example value | Description                                                                                                                                                                                                                                                           |
|-------------|--------|-----------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description | String | No        | fortest       | The description of the NAT Gateway.<br>The description must be 2 to 256 characters in length. It must start with a letter. It cannot start with <code>http ://</code> or <code>https ://</code> .                                                                     |
| Name        | String | No        | nat123        | The name of the NAT Gateway. The name must be 2 to 128 characters in length and can contain letters, numbers, periods (.), underscores (_), or hyphens (-). The name must start with a letter. It cannot start with <code>http ://</code> or <code>https ://</code> . |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | AB5F62CF-2B60-4458-A756-42C9DFE108D1 | The ID of the request. |

### Examples

#### Request example

```
https :// vpc . aliyuncs . com /? Action = ModifyNatG atewayAttr ibute
& NatGateway Id = ngw - xxoo123
& RegionId = cn - hangzhou
&< CommonPara meters >
```

#### Response example

##### • XML format

```
< ModifyNatG atewayAttr ibuteResponse >
  < RequestId > 2315DEB7 - 5E92 - 423A - 91F7 - 4C1EC9AD97 C3 </
  RequestId >
```

```
</ ModifyNatGatewayAttributeResponse >
```

- JSON format

```
{  
  "RequestId ":" 2315DEB7 - 5E92 - 423A - 91F7 - 4C1EC9AD97 C3 "  
}
```

#### Error codes

| HTTP status code | Error code                             | Error message                                             | Description                                |
|------------------|----------------------------------------|-----------------------------------------------------------|--------------------------------------------|
| 404              | InvalidRegionId.NotFound               | The specified RegionId does not exist in our records.     | The specified region ID does not exist.    |
| 404              | InvalidNatGatewayId.NotFound           | The specified NatGatewayId does not exist in our records. | The specified NatGatewayId does not exist. |
| 400              | InvalidParameter.Name.Malformed        | The specified Name is not valid.                          | The name is invalid.                       |
| 400              | InvalidParameter.Description.Malformed | The specified Description is not valid.                   | The description is invalid.                |

[See common error codes](#)

## 13.11 DeleteBandwidthPackage

Deletes a NAT bandwidth package.



#### Note:

This API can be called only if you purchased a NAT bandwidth package before January 26, 2018. If your account does not have a NAT bandwidth package purchased before January 26, 2018, you need to associate an EIP. For more information, see [#unique\\_80](#).

#### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter          | Type    | Required? | Example value             | Description                                                                                   |
|--------------------|---------|-----------|---------------------------|-----------------------------------------------------------------------------------------------|
| Action             | String  | Yes       | DeleteBandwidthPackage    | The name of this action. Value: DeleteBandwidthPackage                                        |
| BandwidthPackageId | String  | Yes       | bwp-bp1arsrmca9kp7inuc3a1 | The ID of the NAT bandwidth package.                                                          |
| RegionId           | String  | Yes       | cn-hangzhou               | The region to which the NAT Gateway belongs.<br>To query the region ID, call DescribeRegions. |
| Force              | Boolean | No        | false                     | Indicates whether to forcibly delete the NAT bandwidth package.                               |

## Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 7D275A59-1EB0-4775-8A20-2A47055EAC5C | The ID of the request. |

## Examples

## Request example

```
https://vpc.aliyuncs.com/?Action=DeleteBandwidthPackage
&BandwidthPackageId=bwp-bp1arsrmca9kp7inuc3a1
&RegionId=cn-hangzhou
&<CommonParameters>
```

## Response example

## • XML format

```
<DeleteBandwidthPackageResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCA C0</RequestId>
```

```
</ DeleteBandwidthPackageResponse >
```

- JSON format

```
{  
  "RequestId": "0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 "  
}
```

#### Error codes

| HTTP status code | Error code                       | Error message                                            | Description                                                                                           |
|------------------|----------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound         | The specified RegionId does not exist in our records.    | The specified region ID does not exist.                                                               |
| 400              | DependencyViolation.ForwardEntry | The specified BandwidthPackageId has dependent resource. | The shared bandwidth package is associated with an SNAT/DNAT entry. Delete the SNAT/DNAT entry first. |
| 400              | DependencyViolation.SnatEntry    | The specified BandwidthPackageId has dependent resource. | The shared bandwidth package is associated with an SNAT/DNAT entry. Delete the SNAT/DNAT entry first. |

[See common error codes](#)

## 13.12 DeleteNatGateway

Deletes a NAT Gateway.



#### Note:

If the NAT Gateway is associated with a shared bandwidth package, you must delete the shared bandwidth package first.

#### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter    | Type    | Required? | Example value             | Description                                                                                   |
|--------------|---------|-----------|---------------------------|-----------------------------------------------------------------------------------------------|
| Action       | String  | Yes       | DeleteNatGateway          | The name of this action. Value: DeleteNatGateway                                              |
| NatGatewayId | String  | Yes       | ngw-bp1uewa15k4iy5770ya89 | The ID of the NAT Gateway.                                                                    |
| RegionId     | String  | Yes       | cn-hangzhou               | The region to which the NAT Gateway belongs.<br>To query the region ID, call DescribeRegions. |
| Force        | Boolean | No        | false                     | Indicates whether to forcibly delete the NAT Gateway.                                         |

## Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 4EC47282-1B74-4534-BD0E-403F3EE64CAF | The ID of the request. |

## Examples

## Request example

```
https://vpc.aliyuncs.com/?Action=DeleteNatGateway
&NatGatewayId=ngw-bp1uewa15k4iy5770ya89
&RegionId=cn-hangzhou
&<CommonParameters>
```

## Response example

## • XML format

```
<DeleteNatGatewayResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCA C0</
  RequestId>
</DeleteNatGatewayResponse>
```

## • JSON format

```
{
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCA C0"
```

```
}
```

## Error codes

| HTTP status code | Error code                            | Error message                                                      | Description                                                                                                           |
|------------------|---------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound              | The specified RegionId does not exist in our records.              | The specified region ID does not exist.                                                                               |
| 404              | InvalidNatGatewayId.NotFound          | The specified NatGatewayId does not exist in our records.          | The specified NatGatewayId does not exist.                                                                            |
| 400              | DependencyViolation.BandwidthPackages | There are BandwidthP packages on specified NatGateway not deleted. | The NAT Gateway is associated with one or more shared bandwidth packages. Delete all shared bandwidth packages first. |

[See common error codes](#)

## 13.13 CreateForwardEntry

Add a DNAT entry to the DNAT table.

Each DNAT entry consists of five parts: ExternalIp, ExternalPort, Protocol, InternalIp, InternalPort. After a DNAT entry is added, the NAT gateway forwards the data of the specified protocol received by [ExternalIp:ExternalPort] to [InternalIp:InternalPort], and returns a response.

Note the following before you call this action:

- Each combination of ExternalIp, ExternalPort, and Protocol of all DNAT entries must be unique (that is, a message cannot be forwarded to multiple targets).
- Each combination of Protocol, InternalIp, and InternalPort of all DNAT entries must be unique.
- If any DNAT entry in the DNAT table is in the Pending or Modifying state, a new DNAT entry cannot be added.

- ExternalIp must meet the following requirements:
  - If your account has a NAT bandwidth package purchased before January 26, 2018, ExternalIp must be a public IP address in the NAT bandwidth package of the NAT Gateway.
  - If your account does not have a NAT bandwidth package purchased before January 26, 2018, ExternalIP must be an EIP associated to the NAT Gateway.
  - A public IP address cannot be used in both SNAT and DNAT entries at the same time.
- InternalIp must meet the following requirements:
  - The InternalIp must belong to the CIDR block of the VPC to which the NAT Gateway belongs.
  - The DNAT entry takes effect only when the InternalIP is used by an ECS instance that is not associated with an EIP. If the InternalIP is used by non-ECS resources such as HaVip, SLB, or RDS, the DNAT entry does not take effect and the Internet traffic cannot be forwarded to the IP address.
  - A public IP address cannot be used in both SNAT and DNAT entries at the same time.
- A maximum of 100 DNAT entries can be added to a DNAT table.

## Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter      | Type   | Required? | Example value             | Description                                        |
|----------------|--------|-----------|---------------------------|----------------------------------------------------|
| Action         | String | Yes       | CreateForwardEntry        | The name of this action. Value: CreateForwardEntry |
| ExternalIp     | String | Yes       | 116.62.222.28             | The public IP address.                             |
| ExternalPort   | String | Yes       | 8080                      | The public port number. Value range: 1 to 65535.   |
| ForwardTableId | String | Yes       | ftb-bp1mbjubq34hlcqpa5u3a | The ID of the DNAT table.                          |

| Parameter    | Type   | Required? | Example value | Description                                                                                                                                                                           |
|--------------|--------|-----------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| InternalIp   | String | Yes       | 192.168.1.1   | The target private IP address.                                                                                                                                                        |
| InternalPort | String | Yes       | 80            | The target private port number. Valid value: 1 to 65535.                                                                                                                              |
| IpProtocol   | String | Yes       | TCP           | The protocol type. Valid values: <ul style="list-style-type: none"> <li>TCP : forward TCP packets.</li> <li>UDP : forward UDP packets.</li> <li>Any : forward all packets.</li> </ul> |
| RegionId     | String | Yes       | cn-hangzhou   | The region to which the NAT Gateway belongs.<br>To query the region ID, call DescribeRegions.                                                                                         |

### Response parameters

| Parameter      | Type   | Example value                        | Description               |
|----------------|--------|--------------------------------------|---------------------------|
| ForwardEntryId | String | fwd-119smw5tk                        | The ID of the DNAT entry. |
| RequestId      | String | A4AEE536-A97A-40EB-9EBE-53A6948A6928 | The ID of the request.    |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=CreateForwardEntry
&ExternalIp=116.62.222.28
&ExternalPort=8080
&ForwardTableId=ftb-bp1mbjubq3-4hlcqpa5u3-a
&InternalIp=192.168.1.1
&InternalPort=80
&IpProtocol=TCP
&RegionId=cn-hangzhou
&<CommonParameters>
```

#### Response example

- XML format

```
<CreateForwardEntryResponse>
  <ForwardEntryId>fwd-119smw5tk</ForwardEntryId>
```

```
< RequestId > 2315DEB7 - 5E92 - 423A - 91F7 - 4C1EC9AD97 C3 </
RequestId >
</ CreateForwardEntryResponse >
```

• JSON format

```
{
  "ForwardEntryId": "fwd-119smw5tk",
  "RequestId": "2315DEB7 - 5E92 - 423A - 91F7 - 4C1EC9AD97 C3"
}
```

## Error codes

| HTTP status code | Error code                          | Error message                                         | Description                                                                                                |
|------------------|-------------------------------------|-------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound            | The specified RegionId does not exist in our records. | The specified region ID does not exist.                                                                    |
| 400              | InvalidExternalIp.Malformed         | The specified ExternalIp is not a valid IP address.   | The specified ExternalIp is invalid.                                                                       |
| 400              | InvalidInternalIp.Malformed         | The specified InternalIp is not a valid IP address.   | The specified InternalIp is invalid.                                                                       |
| 400              | InvalidExternalPort.Malformed       | The specified ExternalPort is not a valid port.       | The specified ExternalPort is invalid.                                                                     |
| 400              | InvalidInternalPort.Malformed       | The specified InternalPort is not a valid port.       | The specified InternalPort is invalid.                                                                     |
| 400              | Forbidden.DestinationIpOutOfVpcCIDR | The specified Internal Ip is Out of VPC CIDR.         | The specified InternalIp is not in the CIDR block of the VPC.                                              |
| 400              | InvalidProtocol.ValueNotSupported   | The specified IpProtocol does not support.            | The specified protocol type is not supported.                                                              |
| 400              | IncorrectForwardEntryStatus         | Some Forward entry status blocked this operation..    | You cannot perform this operation because one or more DNAT entries are in the Pending or Modifying status. |

| HTTP status code | Error code                           | Error message                                               | Description                                                                                                                              |
|------------------|--------------------------------------|-------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
| 404              | InvalidForwardTableId.NotFound       | Specified forward table does not exist.                     | The specified DNAT table does not exist.                                                                                                 |
| 400              | QuotaExceeded                        | Forward entry quota exceeded in this route table.           | The quota for route tables has been reached. To increase the quota, open a ticket.                                                       |
| 404              | InvalidExternalIp.NotFound           | Specified External Ip address does not found on the VRouter | The specified ExternalIP does not exist.                                                                                                 |
| 400              | Forbidden.ExternalIp.UsedInSnatTable | The specified ExternalIp is already used in SnatTable       | The specified ExternalIp is being used by an SNAT rule. Select a different IP address or delete the SNAT rule that uses this IP address. |
| 400              | Forbindden                           | The specified Instance already bind eip                     | An EIP is already attached to this ECS instance. Detach the EIP from the ECS instance first and then add the forwarding rule.            |
| 400              | Forbidden.InternalIp.OutOfVpcCIDR    | The specified Internal Ip is Out of VPC CIDR.               | The specified InternalIP is not in the CIDR block of the VPC.                                                                            |
| 400              | Invalid.natgwNotExist                | The specified natgateway not exist.                         | The specified NAT Gateway does not exist.                                                                                                |
| 400              | InvalidIp.NotInNatgw                 | The specified Ip not belong to natgateway.                  | The specified IP address does not belong to the NAT Gateway.                                                                             |
| 400              | MissingParameter                     | Missing mandatory parameter                                 | The required parameters are missing.                                                                                                     |

[See common error codes](#)

## 13.14 DescribeForwardTableEntries

Queries DNAT entries in a DNAT table.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter      | Type    | Required? | Example value               | Description                                                                                   |
|----------------|---------|-----------|-----------------------------|-----------------------------------------------------------------------------------------------|
| Action         | String  | Yes       | DescribeForwardTableEntries | The name of this action. Value: DescribeForwardTableEntries                                   |
| ForwardTableId | String  | Yes       | ftb-bp1mbjubq34hlcqpa5u3a   | The ID of the DNAT table.                                                                     |
| RegionId       | String  | Yes       | cn-hangzhou                 | The region to which the NAT Gateway belongs.<br>To query the region ID, call DescribeRegions. |
| ForwardEntryId | String  | No        | fwd-8vbn3bc8roygp0gy3xk7    | The ID of the DNAT entry allocated by the system.                                             |
| PageNumber     | Integer | No        | 1                           | The number of pages to return.<br>Default value: 1 .                                          |
| PageSize       | Integer | No        | 10                          | The number of rows per page.<br>Maximum value: 50 . Default value: 10 .                       |

### Response parameters

| Parameter           | Type   | Example value | Description             |
|---------------------|--------|---------------|-------------------------|
| ForwardTableEntries |        |               | A list of DNAT entries. |
| └ExternalIp         | String | 139.xxx.xx.79 | The public IP address.  |
| └ExternalPort       | String | 80            | The public port.        |

| Parameter                   | Type    | Example value                        | Description                                               |
|-----------------------------|---------|--------------------------------------|-----------------------------------------------------------|
| <code>ForwardEntryId</code> | String  | fwd-119smw5tk                        | The ID of the DNAT entry.                                 |
| <code>ForwardTableId</code> | String  | ftb-11tc6xgmv                        | The ID of the DNAT table to which the DNAT entry belongs. |
| <code>InternalIp</code>     | String  | 192.168.1.1                          | The private IP address.                                   |
| <code>InternalPort</code>   | String  | any                                  | The target private port. Value range : 1 to 65535.        |
| <code>IpProtocol</code>     | String  | tcp                                  | The protocol type.                                        |
| <code>Status</code>         | String  | Available                            | The status of the DNAT entry.                             |
| <code>TotalCount</code>     | Integer | 5                                    | The number of queried entries.                            |
| <code>PageNumber</code>     | Integer | 1                                    | The current page number.                                  |
| <code>PageSize</code>       | Integer | 10                                   | The number of entries per page.                           |
| <code>RequestId</code>      | String  | A6C4A8B1-7561-4509-949C-20DEB40D71E6 | The ID of the request.                                    |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DescribeForwardTableEntries
&ForwardTableId=ftb-bp1mbjubq34hlcqpa5u3a
&RegionId=cn-hangzhou
&<CommonParameters>
```

### Response example

- XML format

```
<DescribeForwardTableEntriesResponse>
  <PageNumber>1</PageNumber>
  <TotalCount>1</TotalCount>
  <PageSize>10</PageSize>
  <RequestId>74F2BAD8-AF35-4C57-81F1-5E33BFB0F5F2</RequestId>
  <ForwardTableEntries>
    <ForwardTableEntry>
      <Status>Available</Status>
      <IpProtocol>any</IpProtocol>
      <ForwardEntryId>fwd-bp18jpb1tlm550di3q5pnb</ForwardEntryId>
      <ExternalIp>47.97.xx.xx</ExternalIp>
```

```

    < ForwardTab leId > ftb - bp15o9aylj 19vfvgtznzo y </
ForwardTab leId >
    < ExternalPo rt > any </ ExternalPo rt >
    < InternalPo rt > any </ InternalPo rt >
    < InternalIp > 192 . 168 . xx . xx </ InternalIp >
  </ ForwardTab leEntry >
</ ForwardTab leEntries >
</ DescribeFo rwardTable EntriesRes ponse >

```

• JSON format

```

{
  " PageNumber ": 1 ,
  " TotalCount ": 1 ,
  " PageSize ": 10 ,
  " RequestId ":" 74F2BAD8 - AF35 - 4C57 - 81F1 - 5E33BFB0F5 F2 ",
  " ForwardTab leEntries ":{
    " ForwardTab leEntry ":[
      {
        " ForwardEnt ryId ":" fwd - bp18jpb1tl m550di3q5p b ",
        " IpProtocol ":" any ",
        " Status ":" Available ",
        " ExternalIp ":" 47 . 97 . xx . xx ",
        " ForwardTab leId ":" ftb - bp15o9aylj 19vfvgtznzo y ",
        " ExternalPo rt ":" any ",
        " InternalPo rt ":" any ",
        " InternalIp ":" 192 . 168 . xx . xx "
      }
    ]
  }
}

```

## Error codes

| HTTP status code | Error code                     | Error message                                         | Description                                                                                                           |
|------------------|--------------------------------|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound       | The specified RegionId does not exist in our records. | The specified region ID does not exist.                                                                               |
| 400              | IncorretForwardEntryStatus     | Some Forward entry status blocked this operation..    | This operation is forbidden because one or more DNAT entries in the DNAT table are in the Pending or Modifying state. |
| 404              | InvalidForwardTableId.NotFound | Specified forwardTableId does not exist               | The specified DNAT table does not exist.                                                                              |

[See common error codes](#)

## 13.15 ModifyForwardEntry

Modifies a DNAT entry.



**Note:**

You cannot modify a DNAT entry if the DNAT entry is in the Pending or Modifying state.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter      | Type   | Required? | Example value             | Description                                                                                   |
|----------------|--------|-----------|---------------------------|-----------------------------------------------------------------------------------------------|
| Action         | String | Yes       | ModifyForwardEntry        | The name of this action. Value: ModifyForwardEntry                                            |
| ForwardEntryId | String | Yes       | fwd-8vbn3bc8roygjp0gy3xk7 | The ID of the DNAT entry.                                                                     |
| ForwardTableId | String | Yes       | ftb-8vbx8xu2lqj9qb334h0ow | The ID of the DNAT table.                                                                     |
| RegionId       | String | Yes       | cn-hangzhou               | The region to which the NAT Gateway belongs.<br>To query the region ID, call DescribeRegions. |
| ExternalIp     | String | No        | 116.62.222.28             | The public IP address.                                                                        |
| ExternalPort   | String | No        | 80                        | The public port. Value range: 1 to 65535.                                                     |
| InternalIp     | String | No        | 10.34.56.78               | The target private IP address.                                                                |
| InternalPort   | String | No        | 80                        | The target private port. Value range: 1 to 65535.                                             |

| Parameter  | Type   | Required? | Example value | Description                                                                                                                                                                           |
|------------|--------|-----------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IpProtocol | String | No        | TCP           | The protocol type. Valid values: <ul style="list-style-type: none"> <li>TCP : forward TCP packets.</li> <li>UDP : forward UDP packets.</li> <li>Any : forward all packets.</li> </ul> |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 24CC85DC-7700-4F09-9624-99E988C7DD03 | The ID of the request. |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=ModifyForwardEntry
&ForwardEntryId=fwd-8vbn3bc8ro-ygjp0gy3xk-7
&ForwardTableId=ftb-8vbx8xu2lq-j9qb334h0o-w
&RegionId=cn-hangzhou
&<CommonParameters>
```

#### Response example

##### • XML format

```
<ModifyForwardEntryResponse>
  <RequestId>2315DEB7-5E92-423A-91F7-4C1EC9AD97C3</RequestId>
</ModifyForwardEntryResponse>
```

##### • JSON format

```
{
  "RequestId": "2315DEB7-5E92-423A-91F7-4C1EC9AD97C3"
```

}

## Error codes

| HTTP status code | Error code                          | Error message                                         | Description                                                                                                                 |
|------------------|-------------------------------------|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound            | The specified RegionId does not exist in our records. | The specified region ID does not exist.                                                                                     |
| 400              | InvalidExternalIp.Malformed         | The specified ExternalIp is not a valid IP address.   | The specified public IP address is invalid.                                                                                 |
| 400              | InvalidInternalIp.Malformed         | The specified InternalIp is not a valid IP address.   | The specified InternalIp is invalid.                                                                                        |
| 400              | InvalidExternalPort.Malformed       | The specified ExternalPort is not a valid port.       | The public port is invalid.                                                                                                 |
| 400              | InvalidInternalPort.Malformed       | The specified InternalPort is not a valid port.       | The private port is invalid.                                                                                                |
| 400              | Forbidden.DestinationIpOutOfVpcCidr | The specified Destination Ip is Out of VPC CIDR.      | The specified InternalIp is not in the CIDR block of the VPC.                                                               |
| 400              | InvalidProtocol.ValueNotSupported   | The specified IpProtocol does not support.            | The specified protocol type is not supported.                                                                               |
| 400              | IncorrectForwardEntryStatus         | Some Forward entry status blocked this operation..    | You cannot perform this operation because one or more DNAT entries in the DNAT table are in the Pending or Modifying state. |
| 400              | QuotaExceeded                       | Forward entry quota exceeded in this route table.     | The quota for custom route entries in the route table has been reached. To increase the quota, open a ticket.               |

| HTTP status code | Error code                           | Error message                                               | Description                                                                                                                               |
|------------------|--------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 404              | InvalidForwardEntryId.NotFound       | Specified forward entry ID does not exist                   | The specified DNAT entry does not exist.                                                                                                  |
| 404              | InvalidExternalIp.NotFound           | Specified External Ip address does not found on the VRouter | The specified ExternalIp does not exist.                                                                                                  |
| 404              | InvalidForwardTableId.NotFound       | Specified forward table does not exist.                     | The specified DNAT table does not exist.                                                                                                  |
| 400              | Forbidden.ExternalIp.UsedInSnatTable | The specified ExternalIp is already used in SnatTable       | This specified ExternalIp is being used by an SNAT rule. Select a different IP address or delete the SNAT rule that uses this IP address. |
| 400              | Forbidden.Already.Bounded            | The specified instance already bounded                      | The specified instance is already attached.                                                                                               |

[See common error codes](#)

## 13.16 DeleteForwardEntry

Deletes a DNAT entry.



### Note:

You cannot delete a DNAT entry if the DNAT entry is in the Pending or Modifying state.

### Debug

By using [API Explorer](#), you can debug APIs, automatically generate SDK example codes, and quickly search for APIs.

## Request parameters

| Parameter      | Type   | Required? | Example value             | Description                                                                                   |
|----------------|--------|-----------|---------------------------|-----------------------------------------------------------------------------------------------|
| Action         | String | Yes       | DeleteForwardEntry        | The name of this action. Value: DeleteForwardEntry                                            |
| ForwardEntryId | String | Yes       | fwd-8vbn3bc8roygjp0gy3xk7 | The ID of the DNAT entry.                                                                     |
| ForwardTableId | String | Yes       | ftb-8vbx8xu2lqj9qb334h0ow | The ID of the DNAT table.                                                                     |
| RegionId       | String | Yes       | cn-hangzhou               | The region to which the NAT Gateway belongs.<br>To query the region ID, call DescribeRegions. |

## Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 0ED8D006-F706-4D23-88ED-E11ED28DCAC0 | The ID of the request. |

## Examples

## Request example

```
https://vpc.aliyuncs.com/?Action=DeleteForwardEntry
&ForwardEntryId=fwd-8vbn3bc8roygjp0gy3xk7
&ForwardTableId=ftb-8vbx8xu2lqj9qb334h0ow
&RegionId=cn-hangzhou
&<CommonParameters>
```

## Response example

## • XML format

```
<DeleteForwardEntryResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
</DeleteForwardEntryResponse>
```

## • JSON format

```
<DeleteForwardEntryResponse>
```

```
< RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 </
RequestId >
</ DeleteForwardEntryResponse >
```

## Error codes

| HTTP status code | Error code                     | Error message                                         | Description                                                                                                 |
|------------------|--------------------------------|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound       | The specified RegionId does not exist in our records. | The specified region ID does not exist.                                                                     |
| 400              | IncorrectForwardEntryStatus    | Some Forward entry status blocked this operation..    | This operation cannot be performed because one or more DNAT entries are in the Pending or Modifying status. |
| 404              | InvalidForwardEntryId.NotFound | Specified forward entry ID does not exist             | The specified DNAT entry does not exist.                                                                    |
| 404              | InvalidForwardTableId.NotFound | Specified forward table does not exist.               | The specified DNAT table does not exist.                                                                    |
| 400              | IncorrectForwardEntryStatus    | The Specified forwardEntry is not exist               | The specified DNAT entry does not exist.                                                                    |
| 400              | MissingParameter               | Missing mandatory parameter                           | Required parameters are missing.                                                                            |

[See common error codes](#)

## 13.17 CreateSnatEntry

Adds an SNAT entry to an SNAT table.

Each SNAT entry consists of a SourceVSwitchId and a SnatIp. After an SNAT entry is added, ECS instances under the specified VSwitch can access the Internet using the public IP (SnatIp).

Before you call this action, note the following:

- The VSwitch specified in the SNAT entry must belong to the same VPC as the NAT Gateway.
- Each VSwitch can only be added with one SNAT entry.
- An SNAT entry cannot be added if there is a HaVip instance under the specified VSwitch.
- The public IP (SnatIp) address in the SNAT entry must meet the following requirements:
  - If your account has a NAT bandwidth package before January 26, 2018, the SnatIp must be a public IP address in the NAT bandwidth package of the NAT Gateway.
  - If your account does not have a NAT bandwidth package before January 26, 2018, the SnatIp must be an EIP attached to the NAT Gateway.
  - A public IP address cannot be used by a DNAT entry and an SNAT entry at the same time.

## Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter   | Type   | Required? | Example value             | Description                                                                                   |
|-------------|--------|-----------|---------------------------|-----------------------------------------------------------------------------------------------|
| Action      | String | Yes       | CreateSnatEntry           | The name of this action. Value: CreateSnatEntry                                               |
| RegionId    | String | Yes       | cn-hangzhou               | The region to which the NAT Gateway belongs.<br>To query the region ID, call DescribeRegions. |
| SnatIp      | String | Yes       | 47.XXX.XXX.98             | The public IP address. Separate multiple EIPs with commas.                                    |
| SnatTableId | String | Yes       | stb-bp190wu8io1vgevxxxxxx | The ID of the SNAT table.                                                                     |

| Parameter       | Type   | Required? | Example value             | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------|--------|-----------|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| SourceCIDR      | String | No        | 10.1.1.0/24               | <p>The CIDR block of the VSwitch. Example value: 10.0.0.1/24.</p> <div>  <b>Note:</b><br/>           This parameter and the SourceVSwitchId parameter cannot be used at the same time. If you have specified the SourceVSwitchId parameter, you cannot specify the SourceCIDR parameter. If you have specified the SourceCIDR parameter, you cannot specify the SourceVSwitchId parameter.         </div> |
| SourceVSwitchId | String | No        | vsw-bp1nhx2s9ui5omnw9XXXX | The ID of the VSwitch to access the Internet.                                                                                                                                                                                                                                                                                                                                                                                                                                               |

### Response parameters

| Parameter   | Type   | Example value                        | Description               |
|-------------|--------|--------------------------------------|---------------------------|
| SnatEntryId | String | snat-kmd6nv8fy                       | The ID of the SNAT entry. |
| RequestId   | String | 69B31D6E-9F34-4A5A-8DBC-230A3918E828 | The ID of the request.    |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=CreateSnatEntry
&RegionId=cn-hangzhou
&SnatIp=47.XXX.XXX.98
&SnatTableId=stb-bp190wu8io1vgevxxxxx
&<CommonParameters>
```

#### Response example

- XML format

```
<? xml    version =" 1 . 0 "    encoding =" UTF - 8 " ?>
< CreateSnat  EntryRespo  nse >
  < RequestId > 2315DEB7 - 5E92 - 423A - 91F7 - 4C1EC9AD97  C3 </
  RequestId >
  < SnatEntryI  d > snat - 119smw5tk </ ForwardEnt  ryId >
</ CreateSnat  EntryRespo  nse >
```

- JSON format

```
{
  " RequestId ":" 2315DEB7 - 5E92 - 423A - 91F7 - 4C1EC9AD97  C3 ",
  " SnatEntryI  d ":" snat - 119smw5tk "
}
```

## Error codes

| HTTP status code | Error code                             | Error message                                            | Description                                                              |
|------------------|----------------------------------------|----------------------------------------------------------|--------------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound               | The specified RegionId does not exist in our records.    | The specified region ID does not exist.                                  |
| 404              | InvalidSnatTableId.NotFound            | Specified SNAT table does not exist.                     | The specified SNAT table does not exist.                                 |
| 400              | Forbidden.SourceVSwitchId.IncludeHaVip | There is some HaVips under specified VSwitch             | One or more HAVIPs are already under the specified VSwitch.              |
| 400              | InvalidSnatIp.Malformed                | The specified SnatIp is not a valid IP address.          | The specified SNAT IP address is invalid.                                |
| 400              | SNAT_IP_POOL_COUNT_TOO_MANY            | The Snat pool ip too many.                               | The quota for IP addresses in the SNAT IP address pool has been reached. |
| 400              | Forbidden.SnatEntryCountLimited        | SNAT entry in the specified SNAT table reach it's limit. | The quota for SNAT entries has been reached.                             |
| 404              | InvalidVSwitchId.NotFound              | The specified virtual switch does not exists.            | The specified VSwitch does not exist.                                    |
| 400              | INVALID_PARAMETER                      | The parameter invalid.                                   | The parameter is invalid.                                                |

| HTTP status code | Error code                                   | Error message                                      | Description                                                                                                                             |
|------------------|----------------------------------------------|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| 400              | Forbidden.<br>SourceVSwitchId<br>.Duplicated | The specified SourceCIDR is duplicated.            | An SNAT rule has already been configured for this VSwitch.                                                                              |
| 400              | Forbidden.<br>IpUsedInForwardTable           | The specified SnatIp already used in forward table | This public IP address is being used by a DNAT rule. Select a different IP address or delete the DNAT rule that uses this IP address.   |
| 400              | Forbindden                                   | The specified Instance already bind eip            | An EIP is already associated with this ECS instance. Disassociate the EIP from the ECS instance first and then add the forwarding rule. |

[See common error codes](#)

## 13.18 DescribeSnatTableEntries

Queries one or more SNAT entries in a SNAT table.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter | Type   | Required? | Example value            | Description                                                                                   |
|-----------|--------|-----------|--------------------------|-----------------------------------------------------------------------------------------------|
| Action    | String | Yes       | DescribeSnatTableEntries | The name of this action. Value: DescribeForwardTableEntries                                   |
| RegionId  | String | Yes       | cn-hangzhou              | The region to which the NAT Gateway belongs.<br>To query the region ID, call DescribeRegions. |

| Parameter   | Type    | Required? | Example value              | Description                                                          |
|-------------|---------|-----------|----------------------------|----------------------------------------------------------------------|
| SnatTableId | String  | Yes       | stb-8vbczigrhop8x5u3twlhd  | The ID of the SNAT table.                                            |
| PageNumber  | Integer | No        | 1                          | The number of pages to return. Default value: 1 .                    |
| PageSize    | Integer | No        | 10                         | The number of rows per page. Maximum value: 50 . Default value: 10 . |
| SnatEntryId | String  | No        | snat-8vbae8uqh7rjpk7d2kuwt | The ID of the SNAT entry.                                            |

## Response parameters

| Parameter         | Type    | Example value                        | Description                                                                 |
|-------------------|---------|--------------------------------------|-----------------------------------------------------------------------------|
| SnatTableEntries  | N/A     | N/A                                  | A list of SNAT entries.                                                     |
| └ SnatEntryId     | String  | snat-kmd6nv8fy                       | The ID of the SNAT entry.                                                   |
| └ SnatIp          | String  | 116.62.222.28                        | The public IP address in the SNAT entry.                                    |
| └ SnatTableId     | String  | stb-gz3r3odaw                        | The ID of the SNAT table to which the SNAT entry belongs.                   |
| └ SourceCIDR      | String  | 116.62.222.28/33                     | The source CIDR block of the SNAT entry.                                    |
| └ SourceVSwitchId | String  | vsw-3xbxxxxx                         | The ID of the VSwitch that accesses the Internet through the SNAT function. |
| └ Status          | String  | Pending                              | The status of the SNAT entry.                                               |
| TotalCount        | Integer | 1                                    | The number of queried entries.                                              |
| PageNumber        | Integer | 1                                    | The current page number.                                                    |
| PageSize          | Integer | 5                                    | The number of entries per page.                                             |
| RequestId         | String  | 6D7E89B1-1C5B-412B-8585-4908E222EED5 | The ID of the request.                                                      |

## Examples

### Request example

```
https :// vpc . aliyuncs . com /? Action = DescribeSn atTableEnt
ries
& RegionId = cn - hangzhou
& SnatTableI d = stb - 8vbczigrho p8x5u3twlh d
&< CommonPara meters >
```

### Response example

#### • XML format

```
< DescribeSn atTableEnt riesRespon se >
  < PageNumber > 1 </ PageNumber >
  < PageSize > 10 </ PageSize >
  < RequestId > 6D7E89B1 - 1C5B - 412B - 8585 - 4908E222EE D5 </
RequestId >
  < SnatTableE ntries >
    < SnatTableE ntry >
      < SnatEntryI d > snat - kmd6nv8fy </ SnatEntryI d >
      < SnatIp > 139 . xxx . xx . 40 </ SnatIp >
      < SnatTableI d > stb - gz3r3odaw </ SnatTableI d >
      < SourceCIDR > 192 . 168 . 1 . 0 / 24 </ SourceCIDR >
      < SourceVSwi tchId > vsw - yrv0xxxxx </ SourceVSwi tchId >
      < Status > Available </ Status >
    </ SnatTableE ntry >
    < SnatTableE ntry >
      < SnatEntryI d > snat - bs5bezbme </ SnatEntryI d >
      < SnatIp > 139 . xxx . xx . 40 </ SnatIp >
      < SnatTableI d > stb - gz3r3odaw </ SnatTableI d >
      < SourceCIDR > 192 . 168 . 3 . 0 / 24 </ SourceCIDR >
      < SourceVSwi tchId > vsw - 3xbxxxxx </ SourceVSwi tchId >
      < Status > Available </ Status >
    </ SnatTableE ntry >
  </ SnatTableE ntries >
</ DescribeSn atTableEnt riesRespon se >
```

#### • JSON format

```
{
  " SnatTableE ntries ":{
    " SnatTableE ntry ":[
      {
        " Status ":" Available ",
        " SourceCIDR ":" 192 . 168 . 1 . 0 / 24 ",
        " SnatTableI d ":" stb - gz3r3odaw ",
        " SnatIp ":" 139 . xxx . xx . 40 ",
        " SnatEntryI d ":" snat - kmd6nv8fy ",
        " SourceVSwi tchId ":" vsw - yrv0xxxxx "
      },
      {
        " Status ":" Available ",
        " SourceCIDR ":" 192 . 168 . 3 . 0 / 24 ",
        " SnatTableI d ":" stb - gz3r3odaw ",
        " SnatIp ":" 139 . xxx . xx . 40 ",
        " SnatEntryI d ":" snat - bs5bezbme ",
        " SourceVSwi tchId ":" vsw - 3xbxxxxx "
      }
    ]
  }
}
```

```
]
},
" PageNumber ": 1 ,
" PageSize ": 10 ,
" RequestId ":" 6D7E89B1 - 1C5B - 412B - 8585 - 4908E222EE D5 "
}
```

### Error codes

| HTTP status code | Error code                  | Error message                                         | Description                              |
|------------------|-----------------------------|-------------------------------------------------------|------------------------------------------|
| 404              | InvalidRegionId.NotFound    | The specified RegionId does not exist in our records. | The specified region ID does not exist.  |
| 404              | InvalidSnatTableId.NotFound | Specified SNAT table does not exist.                  | The specified SNAT table does not exist. |

[See common error codes](#)

## 13.19 ModifySnatEntry

Modifies an SNAT entry.



### Note:

You cannot modify an SNAT entry that is in the Pending or Modifying state.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter | Type   | Required? | Example value   | Description                                                                                   |
|-----------|--------|-----------|-----------------|-----------------------------------------------------------------------------------------------|
| Action    | String | Yes       | ModifySnatEntry | The name of this action. Value: ModifySnatEntry                                               |
| RegionId  | String | Yes       | cn-hangzhou     | The region to which the NAT Gateway belongs.<br>To query the region ID, call DescribeRegions. |

| Parameter   | Type   | Required? | Example value              | Description                                                        |
|-------------|--------|-----------|----------------------------|--------------------------------------------------------------------|
| SnatEntryId | String | Yes       | snat-bp1vcgcf8tm0plqcgfl04 | The ID of the SNAT entry.                                          |
| SnatIp      | String | Yes       | 47.XXX.XXX.98              | The public IP address. Separate multiple IP addresses with commas. |
| SnatTableId | String | Yes       | stb-8vbczigrho p8x5u3twlhd | The ID of the SNAT table.                                          |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 2315DEB7-5E92-423A-91F7-4C1EC9AD97C3 | The ID of the request. |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=ModifySnatEntry
&RegionId=cn-hangzhou
&SnatEntryId=snat-bp1vcgcf8tm0plqcgfl04
&SnatIp=47.XXX.XXX.98
&SnatTableId=stb-8vbczigrho p8x5u3twlhd
&<CommonParameters>
```

#### Response example

- XML format

```
<ModifySnatEntryResponse>
  <RequestId>2315DEB7-5E92-423A-91F7-4C1EC9AD97C3</RequestId>
</ModifySnatEntryResponse>
```

- JSON format

```
{
  "RequestId": "2315DEB7-5E92-423A-91F7-4C1EC9AD97C3"
}
```

}

## Error codes

| HTTP status code | Error code                           | Error message                                         | Description                                                                                                                                            |
|------------------|--------------------------------------|-------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound             | The specified RegionId does not exist in our records. | The specified region ID does not exist.                                                                                                                |
| 404              | InvalidSnatTableId.NotFound          | Specified SNAT table does not exist.                  | The specified SNAT table does not exist.                                                                                                               |
| 400              | InvalidSnatIp.Malformed              | The specified SnatIp is not a valid IP address.       | The specified SnatIp is invalid.                                                                                                                       |
| 404              | InvalidSnatEntryId.NotFound          | Specified SNAT entry does not exist.                  | The specified SNAT entry does not exist.                                                                                                               |
| 400              | Forbidden.SourceVSwitchId.Duplicated | The specified SourceCIDR is duplicated.               | SNAT rules have already been configured for this VSwitch.                                                                                              |
| 400              | Forbidden.IpUsedInForwardTable       | The specified SnatIp already used in forward table    | The specified public IP address is already being used by a DNAT rule. Select a different IP address or delete the DNAT rule that uses this IP address. |

[See common error codes](#)

## 13.20 DeleteSnatEntry

Deletes an SNAT entry.



**Note:**

You cannot delete an SNAT entry if the SNAT entry is in the Pending or Modifying state.

## Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter   | Type   | Required? | Example value              | Description                                                                                                              |
|-------------|--------|-----------|----------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Action      | String | Yes       | DeleteSnatEntry            | The name of this action. Value: DeleteSnatEntry                                                                          |
| RegionId    | String | Yes       | cn-hangzhou                | The region ID of the NAT Gateway where the SNAT entry is to be deleted.<br>To query the region ID, call DescribeRegions. |
| SnatEntryId | String | Yes       | snat-bp1vcgcf8tm0plqcgfl04 | The ID of the SNAT entry to be deleted.                                                                                  |
| SnatTableId | String | Yes       | stb-bp190wu8io1vgev80kec7  | The ID of the SNAT table from which the SNAT entry is to be deleted.                                                     |

## Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 47B80B6A-759A-479C-A565-76D04BDA29F3 | The ID of the request. |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DeleteSnatEntry
&RegionId=cn-hangzhou
&SnatEntryId=snat-bp1vcgcf8tm0plqcgfl04
&SnatTableId=stb-bp190wu8io1vgev80kec7
&<CommonParameters>
```

### Response example

- XML format

```
< DeleteSnat EntryRespo nse >
  < RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 </
    RequestId >
</ DeleteSnat EntryRespo nse >
```

- JSON format

```
{
  "RequestId ":" 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 "
}
```

## Error codes

| HTTP status code | Error code                  | Error message                                         | Description                                                                                               |
|------------------|-----------------------------|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound    | The specified RegionId does not exist in our records. | The specified region ID does not exist.                                                                   |
| 400              | IncorretSnatEntryStatus     | Some Snat entry status blocked this operation..       | You cannot perform this operation because one or more SNAT entries are in the Pending or Modifying state. |
| 404              | InvalidSnatEntryId.NotFound | Specified Snat entry ID does not exist                | The specified SNAT entry does not exist.                                                                  |
| 404              | InvalidSnatTableId.NotFound | Specified SNAT table does not exist.                  | The specified SNAT table does not exist.                                                                  |
| 404              | InvalidSnatEntryId.NotFound | Specified SNAT entry does not exist.                  | The specified SNAT entry does not exist.                                                                  |

[View common error codes](#)

# 14 Global Acceleration

## 14.1 CreateGlobalAccelerationInstance

Creates a Global Acceleration instance.



**Note:**

This API only supports creating Pay-As-You-Go Global Acceleration instances.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter | Type    | Required? | Example value                    | Description                                                                                                                                                  |
|-----------|---------|-----------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action    | String  | Yes       | CreateGlobalAccelerationInstance | The name of this action. Value : CreateGlobalAccelerationInstance                                                                                            |
| Bandwidth | Integer | Yes       | 10                               | The bandwidth in Mbps of the instance. Valid values: 10 , 20 , 30 , 40 , 50 , 60 , 70 , 80 , 90 , 100 , 200 , 300 , 400 , 500 , 600 , 700 , 800 , 900 , 1000 |
| RegionId  | String  | Yes       | cn-hangzhou                      | The ID of the region where the Global Acceleration instance is located.<br>To query the region ID, call DescribeRegions.                                     |

| Parameter       | Type   | Required? | Example value                       | Description                                                                                                                                                                                                                                                                                                         |
|-----------------|--------|-----------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ServiceLocation | String | Yes       | china-mainland                      | <p>The service area of the instance. Valid values:</p> <ul style="list-style-type: none"> <li>china - mainland : Mainland China</li> <li>north - america : North America</li> <li>asia - pacific : Asia Pacific</li> <li>europa : Europe</li> </ul> <p>For more information, see <a href="#">Service areas</a>.</p> |
| BandwidthType   | String | No        | Exclusive                           | <p>The type of the Global Acceleration instance. Valid values:</p> <ul style="list-style-type: none"> <li>Sharing : Creates a shared-bandwidth instance.</li> <li>Exclusive ( default ): Creates a dedicated-bandwidth instance.</li> </ul> <p>For more information, see <a href="#">Instance types</a>.</p>        |
| ClientToken     | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | <p>A client token used to guarantee the idempotence of requests.</p> <p>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length.</p>                                                                                                                      |
| Description     | String | No        | My GA                               | <p>The description of the Global Acceleration instance.</p> <p>The description must be 2 to 256 characters in length. It must start with a letter, but cannot start with <code>http://</code> or <code>https://</code>.</p>                                                                                         |

| Parameter | Type   | Required? | Example value | Description                                                                                                                                                                                                                                                       |
|-----------|--------|-----------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name      | String | No        | GA-1          | The name of the instance. The name must be 2 to 128 characters in length and can contain letters, numbers, periods (.), underscores (_), or hyphens (-). The name must start with a letter, but cannot start with <code>http://</code> or <code>https://</code> . |

### Response parameters

| Parameter                    | Type   | Example value                    | Description                                                |
|------------------------------|--------|----------------------------------|------------------------------------------------------------|
| GlobalAccelerationInstanceId | String | ga-t4nluhu6                      | The ID of the Global Acceleration instance.                |
| IpAddress                    | String | 12.34.56.78                      | The public IP address of the Global Acceleration instance. |
| RequestId                    | String | 21AAFD16-F784-4BFB-XXXX-XXXXXXXX | The ID of the request.                                     |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=CreateGlobalAccelerationInstance
&Bandwidth=10
&RegionId=cn-hangzhou
&ServiceLocation=china-mainland
&<CommonParameters>
```

#### Response example

#### XML format

```
<CreateGlobalAccelerationInstanceResponse>
  <GlobalAccelerationInstanceId>ga-t4nluhu6</GlobalAccelerationInstanceId>
  <IpAddress>12.34.56.78</IpAddress>
  <RequestId>21AAFD16-F784-4BFB-XXXX-XXXXXXXX</RequestId>
</CreateGlobalAccelerationInstanceResponse>
```

```
</ CreateGlobalAccelerationInstanceResponse >
```

### JSON format

```
{
  "GlobalAccelerationInstanceId ":" ga - t4nluhu6 ",
  "RequestId ":" 21AAFD16 - F784 - 4BFB - XXXX - XXXXXXXX ",
  "IpAddress ":" 12 . 34 . 56 . 78 "
}
```

### Error codes

| HTTP status code | Error code                                             | Error message                                   | Description                                  |
|------------------|--------------------------------------------------------|-------------------------------------------------|----------------------------------------------|
| 400              | InvalidServiceLocation.ValueNotSupported               | The specified ServiceLocation is not supported. | The specified service area is not supported. |
| 400              | InvalidGlobalAccelerationInstanceName.Malformed        | The specified Name is not valid.                | The name format is invalid.                  |
| 400              | InvalidGlobalAccelerationInstanceDescription.Malformed | The specified Description is not valid.         | The description format is invalid            |

[See common error codes](#)

## 14.2 DescribeGlobalAccelerationInstances

Queries one or more Global Acceleration instances.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter                    | Type    | Required? | Example value                       | Description                                                                                                                                                                                                                                  |
|------------------------------|---------|-----------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action                       | String  | Yes       | DescribeGlobalAccelerationInstances | The name of this action. Value: DescribeGlobalAccelerationInstances                                                                                                                                                                          |
| RegionId                     | String  | Yes       | cn-hangzhou                         | The ID of the region where the Global Acceleration instance is located.<br>To query the region ID, call DescribeRegions.                                                                                                                     |
| BandwidthType                | String  | No        | Exclusive                           | The type of the Global Acceleration instance. Valid values: <ul style="list-style-type: none"> <li>Sharing : Queries only shared-bandwidth instances.</li> <li>Exclusive ( Default ): Queries only dedicated-bandwidth instances.</li> </ul> |
| GlobalAccelerationInstanceId | String  | No        | ga-234sljmxazb4                     | The ID of the Global Acceleration instance.                                                                                                                                                                                                  |
| IncludeReservationData       | Boolean | No        | false                               | Indicates whether one or more specifications in the purchase order that have not taken effect are included. Default value: false.                                                                                                            |
| IpAddress                    | String  | No        | 12.34.56.78                         | The public IP address of the Global Acceleration instance.                                                                                                                                                                                   |
| Name                         | String  | No        | GA-1                                | The name of the Global Acceleration instance.                                                                                                                                                                                                |
| PageNumber                   | Integer | No        | 10                                  | The number of pages to return. Default value: 1 .                                                                                                                                                                                            |
| PageSize                     | Integer | No        | 10                                  | The number of rows per page. Maximum value: 50 . Default value: 10 .                                                                                                                                                                         |

| Parameter       | Type   | Required ? | Example value  | Description                                                                                                                                                                                                                                                      |
|-----------------|--------|------------|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ServerId        | String | No         | i-sxjbl9xgc    | The ID of the accelerated backend server.                                                                                                                                                                                                                        |
| ServiceLocation | String | No         | china-mainland | The service area of the Global Acceleration instance. Valid values: <ul style="list-style-type: none"> <li>china - mainland : Mainland China</li> <li>north - america : North America</li> <li>asia - pacific : Asia Pacific</li> <li>europa : Europe</li> </ul> |
| Status          | String | No         | Available      | The status of the Global Acceleration instance. Valid values: <ul style="list-style-type: none"> <li>Available : available</li> <li>Inuse : allocated</li> <li>Associating : being attached</li> <li>Unassociating : being detached</li> </ul>                   |

### Response parameters

| Parameter                   | Type   | Example value  | Description                                                                   |
|-----------------------------|--------|----------------|-------------------------------------------------------------------------------|
| GlobalAccelerationInstances | N/A    | N/A            | A list of Global Acceleration instances.                                      |
| └AccelerationLocation       | String | china-mainland | The accelerated area of the Global Acceleration instance.                     |
| └BackendServers             | N/A    | N/A            | The list of backend servers associated with the Global Acceleration instance. |

| Parameter                                 | Type   | Example value            | Description                                                                          |
|-------------------------------------------|--------|--------------------------|--------------------------------------------------------------------------------------|
| <code>RegionId</code>                     | String | cn-Beijing               | The ID of the region where the backend server is located.                            |
| <code>ServerId</code>                     | String | i-2zeg83zvn5d4ed4y2rxx   | The ID of the backend server.                                                        |
| <code>ServerIpAddress</code>              | String | 172.17.109.xxx           | The IP address of the backend server.                                                |
| <code>ServerType</code>                   | String | EcsInstance              | The type of the backend server.                                                      |
| <code>Bandwidth</code>                    | String | 10                       | The peak bandwidth of the Global Acceleration instance.                              |
| <code>BandwidthType</code>                | String | Exclusive                | The bandwidth type of the Global Acceleration instance.                              |
| <code>ChargeType</code>                   | String | PrePaid                  | The billing method of the Global Acceleration instance:<br>· PostPaid: Pay-As-You-Go |
| <code>CreationTime</code>                 | String | 2018-07-05T03:39:31Z     | The time at which the Global Acceleration instance was created. UTC time is used.    |
| <code>Description</code>                  | String | apiDescription           | The description of the Global Acceleration instance.                                 |
| <code>ExpiredTime</code>                  | String | 2018-08-05T16:00Z        | The time at which the Global Acceleration instance is to expire.                     |
| <code>GlobalAccelerationInstanceId</code> | String | ga-bp1x99kj7kl1ziw5xuwb5 | The ID of the Global Acceleration instance.                                          |
| <code>InternetChargeType</code>           | String | PayByBandwidth           | The billing method of the Global Acceleration instance.                              |
| <code>IpAddress</code>                    | String | 47.98.99.xxx             | The public IP address of the exclusive-bandwidth Global Acceleration instance.       |
| <code>Name</code>                         | String | instanceName             | The name of the Global Acceleration instance.                                        |
| <code>PublicIpAddresses</code>            | N/A    | N/A                      | The public IP address.                                                               |
| <code>AllocationId</code>                 | String | 12.34.56.78              | The ID of the public IP address of the Global Acceleration instance.                 |

| Parameter                    | Type    | Example value                        | Description                                                   |
|------------------------------|---------|--------------------------------------|---------------------------------------------------------------|
| <code>IpAddress</code>       | String  | 12.34.56.78                          | The public IP address of the Global Acceleration instance.    |
| <code>RegionId</code>        | String  | cn-hangzhou                          | The region where the Global Acceleration instance is located. |
| <code>ServiceLocation</code> | String  | china-mainland                       | The service area of the Global Acceleration instance.         |
| <code>Status</code>          | String  | InUse                                | The status of the Global Acceleration instance.               |
| <code>TotalCount</code>      | Integer | 1                                    | The number of queries entries.                                |
| <code>PageNumber</code>      | Integer | 1                                    | The current page number.                                      |
| <code>PageSize</code>        | Integer | 10                                   | The number of entries per page.                               |
| <code>RequestId</code>       | String  | 6B4EE38D-C75B-4E1F-844E-863A94430676 | The ID of the request.                                        |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DescribeGlobalAccelerationInstances
&RegionId=cn-hangzhou
&<CommonParameters>
```

### Response example

#### XML format

```
<DescribeGlobalAccelerationInstancesResponse>
  <PageNumber>1</PageNumber>
  <TotalCount>1</TotalCount>
  <PageSize>10</PageSize>
  <RequestId>6B4EE38D-C75B-4E1F-844E-863A94430676</RequestId>
  <GlobalAccelerationInstances>
    <GlobalAccelerationInstance>
      <ChargeType>PrePaid</ChargeType>
      <GlobalAccelerationInstanceId>ga-bp1x99kj7k1l1ziw5xuwb5</GlobalAccelerationInstanceId>
      <HasReservationData>>false</HasReservationData>
      <Description></Description>
      <BackendServers>
        <BackendServer>
          <ServerId>i-2zeg83zvn5d4ed4y2r4c</ServerId>
          <RegionId>cn-beijing</RegionId>
          <ServerType>EcsInstance</ServerType>
```

```

    < ServerIpAddress > 172 . 17 . 109 . xxx </ ServerIpAddress >
  </ BackendServers >
</ BackendServers >
< IpAddress > 47 . 98 . 99 . xxx </ IpAddress >
< InternetChargeType > PayByBandwidth </ InternetChargeType >
< Name />
< BandwidthType > Exclusive </ BandwidthType >
< CreationTime > 2018 - 07 - 05T03 : 39 : 31Z </ CreationTime >
< Status > InUse </ Status >
< ServiceLocation > china - mainland </ ServiceLocation >
< RegionId > cn - hangzhou </ RegionId >
< AccelerationLocation > china - mainland </ AccelerationLocation >
< OperationLocks />
< ExpiredTime > 2018 - 08 - 05T16 : 00Z </ ExpiredTime >
< PublicIpAddresses />
< Bandwidth > 10 </ Bandwidth >
</ GlobalAccelerationInstance >
</ GlobalAccelerationInstances >
</ DescribeGlobalAccelerationInstancesResponse >

```

## JSON format

```

{
  "PageNumber": 1,
  "TotalCount": 1,
  "PageSize": 10,
  "RequestId": "6B4EE38D - C75B - 4E1F - 844E - 863A944306 76",
  "GlobalAccelerationInstances": {
    "GlobalAccelerationInstance": [
      {
        "ChargeType": "PrePaid",
        "GlobalAccelerationInstanceId": "ga - bp1x99kj7k1lziw5xuwb 5",
        "HasReservationData": false,
        "Description": "",
        "BackendServers": {
          "BackendServer": [
            {
              "ServerId": "i - 2zeg83zvn5 d4ed4y2r4c",
              "RegionId": "cn - beijing",
              "ServerType": "EcsInstance",
              "ServerIpAddress": "172 . 17 . 109 . xxx"
            }
          ]
        }
      }
    ],
    "IpAddress": "47 . 98 . 99 . xxx",
    "InternetChargeType": "PayByBandwidth",
    "Name": "",
    "BandwidthType": "Exclusive",
    "CreationTime": "2018 - 07 - 05T03 : 39 : 31Z",
    "Status": "InUse",
    "ServiceLocation": "china - mainland",
    "RegionId": "cn - hangzhou",
    "AccelerationLocation": "china - mainland",
    "OperationLocks": {
      "LockReason": []
    },
    "ExpiredTime": "2018 - 08 - 05T16 : 00Z",
    "PublicIpAddresses": {

```

```

    "PublicIpAddress": [],
    "Bandwidth": "10"
  }
}
}

```

## Error codes

[See common error codes](#)

## 14.3 ModifyGlobalAccelerationInstanceAttributes

Modifies the name and description of a Global Acceleration instance.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter                    | Type   | Required? | Example value                              | Description                                                                                                                                                                            |
|------------------------------|--------|-----------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action                       | String | Yes       | ModifyGlobalAccelerationInstanceAttributes | The name of this action. Value: ModifyGlobalAccelerationInstanceAttributes                                                                                                             |
| GlobalAccelerationInstanceId | String | Yes       | ga-14fdsf3xxx                              | The ID of the Global Acceleration instance.                                                                                                                                            |
| RegionId                     | String | Yes       | cn-hangzhou                                | The region where the Global Acceleration instance is located.<br>To query the region ID, call DescribeRegions.                                                                         |
| Description                  | String | No        | My GA                                      | The description of the Global Acceleration instance.<br>The description must be 2 to 256 characters in length. It must start with a letter, but cannot start with http:// or https://. |

| Parameter | Type   | Required? | Example value | Description                                                                                                                                                                                                                                                                              |
|-----------|--------|-----------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name      | String | No        | GA-1          | The name of the Global Acceleration instance.<br>The name must be 2 to 128 characters in length and can contain letters, numbers, periods (.), underscores (_), or hyphens (-). The name must start with a letter, but cannot start with <code>http://</code> or <code>https://</code> . |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | BD5BCEE8-F62C-40C2-9AC3-89XXXXXXXXXX | The ID of the request. |

### Example

#### Request example

```
https://vpc.aliyuncs.com/?Action=ModifyGlobalAccelerationInstanceAttribute
&GlobalAccelerationInstanceId=ga-14fdsf3xxx
&RegionId=cn-hangzhou
&<CommonParameters>
```

#### Response example

##### XML format

```
<ModifyGlobalAccelerationInstanceAttributeResponse>
  <RequestId>185E81B1-3916-4667-B48F-C52409B33F2B</RequestId>
</ModifyGlobalAccelerationInstanceAttributeResponse>
```

##### JSON format

```
{
  "RequestId": "BD5BCEE8-F62C-40C2-9AC3-89XXXXXXXXXX"
```

```
}
```

### Error codes

| HTTP status code | Error code                                             | Error message                                            | Description                                                |
|------------------|--------------------------------------------------------|----------------------------------------------------------|------------------------------------------------------------|
| 400              | InvalidGlobalAccelerationInstanceId.NotFound           | The specified GlobalAccelerationInstanceId is not found. | The specified Global Acceleration instance does not exist. |
| 400              | InvalidGlobalAccelerationInstanceName.Malformed        | The specified Name is not valid.                         | The name format is invalid.                                |
| 400              | InvalidGlobalAccelerationInstanceDescription.Malformed | The specified Description is not valid.                  | The description format is invalid.                         |

[See common error codes](#)

## 14.4 ModifyGlobalAccelerationInstanceSpec

Modifies the bandwidth of a Global Acceleration instance.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

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

| Parameter                    | Type    | Required? | Example value          | Description                                                                                                                                       |
|------------------------------|---------|-----------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Bandwidth                    | Integer | Yes       | 10                     | The peak bandwidth in Mbps of the Global Acceleration instance. Valid values: 10,20,30,40,50,60,70,80,90,100,200,300,400,500,600,700,800,900,1000 |
| GlobalAccelerationInstanceId | String  | Yes       | ga-32s33sxxxxx<br>xxxx | The ID of the Global Acceleration instance.                                                                                                       |
| RegionId                     | String  | Yes       | cn-hangzhou            | The ID of the region where the Global Acceleration instance is located.<br>To query the region ID, call DescribeRegions.                          |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | BD5BCEE8-F62C-40C2-9AC3-89XXXXXXXXXX | The ID of the request. |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=ModifyGlobalAccelerationInstanceSpec
&Bandwidth=10
&GlobalAccelerationInstanceId=ga-32s33sxxxxx-xxxx
&RegionId=cn-hangzhou
&<CommonParameters>
```

#### Response example

##### XML format

```
<ModifyGlobalAccelerationInstanceSpecResponse>
  <RequestId>BD5BCEE8-F62C-40C2-9AC3-89XXXXXXXXXX</RequestId>
</ModifyGlobalAccelerationInstanceSpecResponse>
```

##### JSON format

```
{
```

```
" RequestId ":" BD5BCEE8 - F62C - 40C2 - 9AC3 - 89XXXXXXXX X "
```

### Error codes

| HTTP status code | Error code                                             | Error message                                                | Description                                                |
|------------------|--------------------------------------------------------|--------------------------------------------------------------|------------------------------------------------------------|
| 400              | InvalidGlobalAccelerationInstanceId.NotFound           | The specified GlobalAccelerationInstanceId is not found.     | The specified Global Acceleration instance does not exist. |
| 400              | InvalidGlobalAccelerationInstanceName.Malformed        | The specified Name is not valid.                             | The name format is invalid.                                |
| 400              | InvalidGlobalAccelerationInstanceDescription.Malformed | The specified Description is not valid.                      | The description format is invalid.                         |
| 500              | InternalServerError                                    | The request processing has failed due to some unknown error. | An error occurred while the request was being processed.   |

[See common error codes](#)

## 14.5 DeleteGlobalAccelerationInstance

Deletes a Global Acceleration instance.

Note the following before you call this action:

- Only Pay-As-You-Go instances can be deleted.
- If you want to delete a dedicated-bandwidth instance, you must first detach the backend server before deleting the instance.
- If you want to delete a shared-bandwidth instance, you must first disassociate the EIP or EIPs before deleting the instance.

## Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter                    | Type   | Required? | Example value                    | Description                                                                                                              |
|------------------------------|--------|-----------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Action                       | String | Yes       | DeleteGlobalAccelerationInstance | The name of this action. Value : DeleteGlobalAccelerationInstance                                                        |
| GlobalAccelerationInstanceId | String | Yes       | ga-asdfsl22sxxxx                 | The ID of the Global Acceleration instance.                                                                              |
| RegionId                     | String | Yes       | cn-hangzhou                      | The ID of the region where the Global Acceleration instance is located.<br>To query the region ID, call DescribeRegions. |

## Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | E6E63B2A-9820-44A8-A359-9BB2DAEE6424 | The ID of the request. |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DeleteGlobalAccelerationInstance
&GlobalAccelerationInstanceId=ga-asdfsl22sxxxx
&RegionId=cn-hangzhou
&<CommonParameters>
```

### Response example

#### XML format

```
<DeleteGlobalAccelerationInstanceResponse>
```

```
< RequestId > E6E63B2A - 9820 - 44A8 - A359 - 9BB2DAEE64 24 </
RequestId >
</ DeleteGlobalAccelerationInstanceResponse >
```

### JSON format

```
{
  "RequestId ":" E6E63B2A - 9820 - 44A8 - A359 - 9BB2DAEE64 24 "
}
```

### Error codes

| HTTP status code | Error code                                   | Error message                                                                              | Description                                                                                                   |
|------------------|----------------------------------------------|--------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| 400              | IncorrectGlobalAccelerationInstanceIdStatus  | Current GlobalAccelerationInstance status does not support this operation.                 | The specified Global Acceleration instance does not support this operation.                                   |
| 400              | InvalidGlobalAccelerationInstanceId.NotFound | The specified GlobalAccelerationInstanceId is not found.                                   | The specified Global Acceleration instance does not exist.                                                    |
| 400              | IncorrectStatus                              | This operation would be allowed only when status of this RouterInterface is Idle/Inactive. | This operation is not permitted because the associated router interface is not in the Idle or Inactive state. |

[See common error codes](#)

## 14.6 AssociateGlobalAccelerationInstance

Attaches a backend server to a dedicated-bandwidth Global Acceleration instance.

Note the following before you call this action:

- Only a VPC ECS instance or a VPC SLB instance can be attached to a dedicated-bandwidth instance.
- A dedicated-bandwidth instance can be associated with only one backend server.
- A backend server can be attached to multiple dedicated-bandwidth instances.
- The backend server and the dedicated-bandwidth instance must belong to the same account.

- The backend server to attach must be in the service area of the dedicated-bandwidth instance.
- Only dedicated-bandwidth instances support attaching a backend server by using this API.

## Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter                    | Type   | Required? | Example value                       | Description                                                                                                                                                                |
|------------------------------|--------|-----------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action                       | String | Yes       | AssociateGlobalAccelerationInstance | The name of this action. Value : AssociateGlobalAccelerationInstance                                                                                                       |
| BackendServerId              | String | Yes       | i-saf23xxxxxxx                      | The ID of the backend server.                                                                                                                                              |
| BackendServerRegionId        | String | Yes       | cn-shanghai                         | The region where the backend server is located. It must belong to the service area of the dedicated-bandwidth instance.                                                    |
| GlobalAccelerationInstanceId | String | Yes       | ga-lsajj32xxxxx                     | The ID of the dedicated-bandwidth instance.                                                                                                                                |
| RegionId                     | String | Yes       | cn-hangzhou                         | The ID of the region where the dedicated-bandwidth instance is located.<br>To query the region ID, call DescribeRegions.                                                   |
| BackendServerType            | String | No        | EcsInstance                         | The type of the backend server . Valid values: <ul style="list-style-type: none"> <li>EcsInstance ( default ): ECS instance</li> <li>SlbInstance : SLB instance</li> </ul> |

## Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | DDF2CC38-76C7-4000-909D-B2088158AEDA | The ID of the request. |

## Examples

## Request example

```
https://vpc.aliyuncs.com/?Action=AssociateGlobalAccelerationInstance
&BackendServerId=i-saf23xxxxx
&BackendServerRegionId=cn-shanghai
&GlobalAccelerationInstanceId=ga-lsajj32xxx
&RegionId=cn-hangzhou
&<CommonParameters>
```

## Response example

## XML format

```
<AssociateGlobalAccelerationInstanceResponse>
  <RequestId>DDF2CC38-76C7-4000-909D-B2088158AEDA</RequestId>
</AssociateGlobalAccelerationInstanceResponse>
```

## JSON format

```
{
  "RequestId": "DDF2CC38-76C7-4000-909D-B2088158AEDA"
}
```

## Error codes

| HTTP status code | Error code                                   | Error message                                            | Description                                                |
|------------------|----------------------------------------------|----------------------------------------------------------|------------------------------------------------------------|
| 404              | InvalidGlobalAccelerationInstanceId.NotFound | The specified GlobalAccelerationInstanceId is not found. | The specified Global Acceleration instance does not exist. |
| 404              | InvalidBackendServerId.NotFound              | The specified BackendServerId is not found.              | The specified backend server does not exist.               |

| HTTP status code | Error code                                       | Error message                                                              | Description                                                                                                                                                                                                           |
|------------------|--------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 400              | IncorrectGlobalAccelerationInstanceIdStatus      | Current GlobalAccelerationInstance status does not support this operation. | The specified Global Acceleration instance does not support this operation.                                                                                                                                           |
| 400              | InvalidBackendServerId.NotInVPC                  | The specified BackendServerId is not in VPC.                               | The specified backend server does not use the VPC network type.                                                                                                                                                       |
| 400              | TaskConflict.AssociateGlobalAccelerationInstance | Operate too frequent.                                                      | The system cannot process this many requests. Please try again later.                                                                                                                                                 |
| 400              | InvalidBackendServerRegionId.EqualRegionId       | The specified BackendServerRegionId can not be the same as RegionId.       | The specified region ID and backend server region ID cannot be the same.                                                                                                                                              |
| 400              | InvalidAssociation.Duplicated                    | Specified instance already is associated.                                  | This instance is already attached to an EIP or Global Acceleration instance. To attach the instance to a different EIP or Global Acceleration instance, detach the current EIP or Global Acceleration instance first. |
| 400              | InvalidBackendServerType.NotFound                | The specified BackendServerType is not supported.                          | The specified backend server type is not supported.                                                                                                                                                                   |
| 400              | InvalidParameter                                 | The specified parameter is not valid.                                      | The specified parameter value is invalid.                                                                                                                                                                             |

[See common error codes](#)

## 14.7 UnassociateGlobalAccelerationInstance

Detaches a Global Acceleration instance from its corresponding backend server.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter                    | Type   | Required? | Example value                         | Description                                                                                                                                                                                      |
|------------------------------|--------|-----------|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action                       | String | Yes       | UnassociateGlobalAccelerationInstance | The name of this action. Value: UnassociateGlobalAccelerationInstance                                                                                                                            |
| GlobalAccelerationInstanceId | String | Yes       | ga-1sxee33xxx                         | The ID of the Global Acceleration instance.                                                                                                                                                      |
| RegionId                     | String | Yes       | cn-hangzhou                           | The region where the Global Acceleration instance is located.<br>To query the region ID, call DescribeRegions.                                                                                   |
| InstanceType                 | String | No        | EcsInstance                           | The instance type. Valid values: <ul style="list-style-type: none"><li>RemoteEcsInstance: ECS instance</li><li>RemoteSlbInstance: SLB instance</li><li>RemoteEniInstance: ENI instance</li></ul> |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | BD5BCEE8-F62C-40C2-9AC3-89XXXXXXXXXX | The ID of the request. |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=UnassociateGlobalAccelerationInstance
&GlobalAccelerationInstanceId=ga-1sxee33xxx&RegionId=cn-hangzhou
&<CommonParameters>
```

### Response example

#### XML format

```
<UnassociateGlobalAccelerationInstanceResponse>
  <RequestId>BD5BCEE8-F62C-40C2-9AC3-89XXXXXXXXXX</RequestId>
</UnassociateGlobalAccelerationInstanceResponse>
```

#### JSON format

```
{
  "RequestId": "BD5BCEE8-F62C-40C2-9AC3-89XXXXXXXXXX"
}
```

## Error codes

| HTTP status code | Error code                                   | Error message                                                              | Description                                                                 |
|------------------|----------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 404              | InvalidGlobalAccelerationInstanceId.NotFound | The specified GlobalAccelerationInstanceId is not found.                   | The specified Global Acceleration instance does not exist.                  |
| 400              | IncorrectGlobalAccelerationInstanceIdStatus  | Current GlobalAccelerationInstance status does not support this operation. | The specified Global Acceleration instance does not support this operation. |

[See common error codes](#)

## 14.8 DescribeServerRelatedGlobalAccelerationInstances

Queries Global Acceleration instances attached to a backend server.



**Note:**

This API only supports querying dedicated-bandwidth instances.

## Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter  | Type   | Required? | Example value                                    | Description                                                                                                                                                               |
|------------|--------|-----------|--------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action     | String | Yes       | DescribeServerRelatedGlobalAccelerationInstances | The name of this action. Value : DescribeServerRelatedGlobalAccelerationInstances                                                                                         |
| RegionId   | String | Yes       | cn-hangzhou                                      | The ID of the region where the Global Acceleration instance is located.<br>To query the region ID, call DescribeRegions.                                                  |
| ServerId   | String | Yes       | i-12s3sdfxxx<br>xxxxxx                           | The ID of the backend server.                                                                                                                                             |
| ServerType | String | No        | EcsInstance                                      | The type of the backend server . Valid values: <ul style="list-style-type: none"><li>EcsInstance ( default ): ECS instance.</li><li>SlbInstance : SLB instance.</li></ul> |

## Response parameters

| Parameter                                 | Type   | Example value              | Description                                                |
|-------------------------------------------|--------|----------------------------|------------------------------------------------------------|
| GlobalAccelerationInstances               | N/A    | N/A                        | A list of Global Acceleration instances.                   |
| <sup>⌞</sup> GlobalAccelerationInstanceId | String | ga-t4nku6vv9x<br>xxxxxxxxx | The ID of the Global Acceleration instance.                |
| <sup>⌞</sup> IpAddress                    | String | 12.34.56.78                | The public IP address of the Global Acceleration instance. |

| Parameter                    | Type   | Example value                      | Description                                                             |
|------------------------------|--------|------------------------------------|-------------------------------------------------------------------------|
| <code>RegionId</code>        | String | ap-southeast-1                     | The ID of the region where the Global Acceleration instance is located. |
| <code>ServerIpAddress</code> | String | 172.24.52.234                      | The IP address of the backend server.                                   |
| <code>RequestId</code>       | String | A8252014-D8DE-4D85-AF35-AFEXXXXXXX | The ID of the request.                                                  |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DescribeServerRelatedGlobalAccelerationInstances
&RegionId=cn-hangzhou
&ServerId=i-12s3sdfxxx
&<CommonParameters>
```

### Response example

#### XML format

```
<DescribeServerRelatedGlobalAccelerationInstancesResponse>
  <GlobalAccelerationInstances>
    <GlobalAccelerationInstance>
      <GlobalAccelerationInstanceId>ga-t4nku6vv9xxxxxxx
    </GlobalAccelerationInstanceId>
    <IpAddress>12.34.56.78</IpAddress>
    <RegionId>ap-southeast-1</RegionId>
    <ServerIpAddress>172.24.52.234</ServerIpAddress>
    </GlobalAccelerationInstance>
  </GlobalAccelerationInstances>
  <RequestId>A8252014-D8DE-4D85-AF35-AFEXXXXXXX</RequestId>
</DescribeServerRelatedGlobalAccelerationInstancesResponse>
```

#### JSON format

```
{
  "RequestId": "A8252014-D8DE-4D85-AF35-AFEXXXXXXX",
  "GlobalAccelerationInstances": {
    "GlobalAccelerationInstance": [
      {
        "GlobalAccelerationInstanceId": "ga-t4nku6vv9xxxxxxx",
        "RegionId": "ap-southeast-1",
        "IpAddress": "12.34.56.78",
        "ServerIpAddress": "172.24.52.234"
      }
    ]
  }
}
```

```
}  
}
```

### Error codes

| HTTP status code | Error code                        | Error message                                     | Description                                                         |
|------------------|-----------------------------------|---------------------------------------------------|---------------------------------------------------------------------|
| 404              | InvalidBackendServerId.NotFound   | The specified BackendServerId is not found.       | The specified backend server does not exist.                        |
| 400              | InvalidBackendServerId.NotInVPC   | The specified BackendServerId is not in VPC.      | The specified backend server does not support the VPC network type. |
| 400              | InvalidBackendServerType.NotFound | The specified BackendServerType is not supported. | The specified backend server type is not supported.                 |

[See common error codes](#)

## 14.9 AddGlobalAccelerationInstanceIp

Adds an EIP to a shared-bandwidth instance.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter                    | Type   | Required? | Example value                   | Description                                                     |
|------------------------------|--------|-----------|---------------------------------|-----------------------------------------------------------------|
| Action                       | String | Yes       | AddGlobalAccelerationInstanceIp | The name of this action. Value: AddGlobalAccelerationInstanceIp |
| GlobalAccelerationInstanceId | String | Yes       | ga-LXXX111                      | The ID of the shared-bandwidth instance.                        |

| Parameter    | Type   | Required? | Example value    | Description                                                                                                                                                                                                                                                                                                                             |
|--------------|--------|-----------|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| IpInstanceId | String | Yes       | i-rw434rwfaf-xxx | <p>The ID of the EIP.</p> <p>To query the EIP ID, call DescribeEipAddresses.</p> <div>  <b>Note:</b><br/>           The billing method of the EIP must be Pay-As-You-Go, and the regions of the EIP and the instance must be the same.         </div> |
| RegionId     | String | Yes       | cn-hangzhou      | <p>The ID of the region where the shared-bandwidth instance is located.</p> <p>To query the region ID, call DescribeRegions.</p>                                                                                                                                                                                                        |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 01FDDD49-C4B7-4D2A-A8E5-A93915C450A6 | The ID of the request. |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=AddGlobalAccelerationInstanceIp
&GlobalAccelerationInstanceId=ga-LXXX111
&IpInstanceId=i-rw434rwfaf-xxx
&RegionId=cn-hangzhou
&<CommonParameters>
```

#### Response example

#### XML format

```
<AddGlobalAccelerationInstanceIpResponse>
  <RequestId>01FDDD49-C4B7-4D2A-A8E5-A93915C450A6</RequestId>
```

```
</ AddGlobalAccelerationInstanceIpResponse >
```

### JSON format

```
{
  "RequestId": "01FDDD49 - C4B7 - 4D2A - A8E5 - A93915C450 A6 "
}
```

### Error codes

| HTTP status code | Type                               | Example value                                                   | Description                                            |
|------------------|------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------|
| 404              | InvalidRegionId.NotFound           | The specified RegionId does not exist in our records.           | The specified region ID does not exist.                |
| 404              | InvalidBandwidthPackageId.NotFound | The specified bandwidthPackageId does not exist in our records. | The specified shared-bandwidth package does not exist. |

[See common error codes](#)

## 14.10 RemoveGlobalAccelerationInstanceIp

Removes an EIP from a shared-bandwidth instance.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter                    | Type   | Required? | Example value                      | Description                                                        |
|------------------------------|--------|-----------|------------------------------------|--------------------------------------------------------------------|
| Action                       | String | Yes       | RemoveGlobalAccelerationInstanceIp | The name of this action. Value: RemoveGlobalAccelerationInstanceIp |
| GlobalAccelerationInstanceId | String | Yes       | ga-m5ex47zwya1sejynidhms           | The ID of the shared-bandwidth instance.                           |

| Parameter    | Type   | Required? | Example value             | Description                                                                                                           |
|--------------|--------|-----------|---------------------------|-----------------------------------------------------------------------------------------------------------------------|
| IpInstanceId | String | Yes       | eip-bp13e9i2qst4g6jzi35tc | The ID of the EIP.<br>To query the EIP ID, call DescribeEipAddresses.                                                 |
| RegionId     | String | Yes       | cn-hangzhou               | The ID of the region where the shared-bandwidth instance is located.<br>To query the region ID, call DescribeRegions. |

### Response parameters

| Parameter | Type   | Example value                      | Description            |
|-----------|--------|------------------------------------|------------------------|
| RequestId | String | RemoveGlobalAccelerationInstanceIp | The ID of the request. |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=RemoveGlobalAccelerationInstanceIp
&GlobalAccelerationInstanceId=ga-m5ex47zwya1sejynidhms
&IpInstanceId=eip-bp13e9i2qst4g6jzi35tc
&RegionId=cn-hangzhou
&<CommonParameters>
```

#### Response example

##### XML format

```
{
  "RequestId": "01FDDD49-C4B7-4D2A-A8E5-A93915C450A6"
}
```

##### JSON format

```
{
  "RequestId": "01FDDD49-C4B7-4D2A-A8E5-A93915C450A6"
}
```

```
}
```

**Error codes**

| HTTP status code | Error code                         | Error message                                                   | Description                                            |
|------------------|------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------|
| 404              | InvalidRegionId.NotFound           | The specified RegionId does not exist in our records.           | The specified region ID does not exist.                |
| 404              | InvalidBandwidthPackageId.NotFound | The specified bandwidthPackageId does not exist in our records. | The specified shared bandwidth package does not exist. |

[See common error codes](#)

## 15 Internet Shared Bandwidth

### 15.1 DescribeCommonBandwidthPackages

Query Internet Shared Bandwidth instances in a region.

Request parameters

| Name               | Type    | Required | Description                                                                                                                                       |
|--------------------|---------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| Action             | String  | Yes      | The action to perform. Valid value: DescribeCommonBandwidthPackages                                                                               |
| RegionId           | String  | Yes      | The ID of the region where the Internet Shared Bandwidth instance is located.<br>You can obtain the region ID by calling the DescribeRegions API. |
| BandwidthPackageId | String  | Yes      | The ID of the Internet Shared Bandwidth instance.                                                                                                 |
| PageNumber         | Integer | No       | The number of pages to return. The default value is 1.                                                                                            |
| PageSize           | Integer | No       | The number of rows per page. The maximum value is 50 and the default value is 10.                                                                 |

Response parameters

| Name                    | Type    | Description                                    |
|-------------------------|---------|------------------------------------------------|
| RequestId               | String  | The ID of the request.                         |
| TotalCount              | String  | The number of queried entries.                 |
| PageNumber              | Integer | The current page number.                       |
| PageSize                | String  | The number of rows per page.                   |
| CommonBandwidthPackages | List    | A list of Internet Shared Bandwidth instances. |

Table 15-1: CommonBandwidthPackage

| Name               | Type    | Description                                                                                                                                                                                                |
|--------------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BandwidthPackageId | String  | The ID of the Internet Shared Bandwidth instance.                                                                                                                                                          |
| Name               | String  | The name of the Internet Shared Bandwidth instance.                                                                                                                                                        |
| Description        | String  | The description of the Internet Shared Bandwidth instance.                                                                                                                                                 |
| Bandwidth          | Integer | The peak bandwidth of the Internet Shared Bandwidth instance.                                                                                                                                              |
| InternetChargeType | String  | The billing method of the Internet Shared Bandwidth instance. <ul style="list-style-type: none"><li>PayBy95 : Pay by classic 95th percentile pricing.</li><li>PayByBandwidth : Pay by bandwidth.</li></ul> |
| BusinessStatus     | String  | The business status of the Internet Shared Bandwidth instance. <ul style="list-style-type: none"><li>Normal : normal</li><li>FinancialLocked : Locked because the instance is overdue</li></ul>            |

Table 15-2: PublicIpAddresses

| Name         | Type   | Description                 |
|--------------|--------|-----------------------------|
| IpAddress    | String | The address of the EIP.     |
| AllocationId | String | The ID of the EIP instance. |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DescribeCommonBandwidthPackages
&RegionId=cn-hangzhou
&CommonParameters
```

### Response example

## JSON format

```
{
  "DescribeCommonBandwidthPackageResponse": {
    "PageNumber": 1,
    "TotalCount": 1,
    "PageSize": 10,
    "RequestId": "20E6FD1C-7321-4DAD-BDFD-EC8769E4AA33",
    "CommonBandwidthPackage": {
      "CommonBandwidthPackage": {
        "ZoneId": "cn-hangzhou-d",
        "InternetChargeType": "PayByBandwidth",
        "Name": "abc",
        "CreationTime": "2017-06-28T06:39:20Z",
        "Status": "Available",
        "BandwidthPackageId": "cbwp-bp1vevu8h3ieh5xkcdhdy",
        "BusinessStatus": "Normal",
        "RegionId": "cn-hangzhou",
        "Ratio": 100,
        "InstanceChargeType": "PostPaid",
        "PublicIpAddresses": {
          "PublicIpAddress": [
            {
              "IpAddress": "116.62.129.250",
              "AllocationId": "eip-bp13e9i2qst4g6jzi35tc"
            }
          ]
        },
        "Bandwidth": 20
      }
    }
  }
}
```

## XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
<DescribeCommonBandwidthPackageResponse>
  <PageNumber>1</PageNumber>
  <TotalCount>1</TotalCount>
  <PageSize>10</PageSize>
  <RequestId>20E6FD1C-7321-4DAD-BDFD-EC8769E4AA33</RequestId>
  <CommonBandwidthPackage>
    <CommonBandwidthPackage>
      <Description />
      <ZoneId>cn-hangzhou-d</ZoneId>
      <InternetChargeType>PayByBandwidth</InternetChargeType>
      <Name>abc</Name>
      <CreationTime>2017-06-28T06:39:20Z</CreationTime>
      <Status>Available</Status>
      <BandwidthPackageId>cbwp-bp1vevu8h3ieh5xkcdhdy</BandwidthPackageId>
      <BusinessStatus>Normal</BusinessStatus>
      <RegionId>cn-hangzhou</RegionId>
      <Ratio>100</Ratio>
      <InstanceChargeType>PostPaid</InstanceChargeType>
      <PublicIpAddresses>
```

```

        < PublicIpAd_dresse >
            < IpAddress > 116 . 62 . 129 . 250 </ IpAddress >
            < Allocation_Id > eip - bp13e9i2qs t4g6jzi35t c
        </ Allocation_Id >
        </ PublicIpAd_dresse >
    </ PublicIpAd_dresses >
    < Bandwidth > 20 </ Bandwidth >
    </ CommonBand_widthPackage >
    </ CommonBand_widthPackages >
</ DescribeCommonBandwidthPackageResponse >

```

## 15.2 ModifyCommonBandwidthPackageAttribute

Modifies the name and description of an Internet Shared Bandwidth instance.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter          | Type   | Required? | Example value                         | Description                                                                                                                                                                                                          |
|--------------------|--------|-----------|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action             | String | Yes       | ModifyCommonBandwidthPackageAttribute | The name of this action. Value: ModifyCommonBandwidthPackageAttribute                                                                                                                                                |
| BandwidthPackageId | String | Yes       | cbwp-2ze2ic1xd2qeqk145pn4u            | The ID of the Internet Shared Bandwidth instance.                                                                                                                                                                    |
| RegionId           | String | Yes       | cn-hangzhou                           | The ID of the region where the Internet Shared Bandwidth instance is located.<br>To query the region ID, call DescribeRegions.                                                                                       |
| Description        | String | No        | 0Description                          | The description of the Internet Shared Bandwidth instance. The description must be 2 to 256 characters in length. It must start with a letter, but cannot start with <code>http://</code> or <code>https://</code> . |

| Parameter | Type   | Required? | Example value | Description                                                                                                                                                                                                                                                                                 |
|-----------|--------|-----------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name      | String | No        | test123       | The name of the Internet Shared Bandwidth instance. The name must be 2 to 128 characters in length and can contain letters, numbers, periods (.), underscores (_), or hyphens (-). The name must start with a letter, but cannot start with <code>http://</code> or <code>https://</code> . |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | B450CAD8-50BC-4506-ADA7-35C6CE63E96B | The ID of the request. |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?BandwidthPackageId=cbwp-2ze2ic1xd2-qeqk145pn4-u&RegionId=cn-hangzhou&<CommonParameters>
```

#### Response example

##### XML format

```
<ModifyBandwidthPackageAttributeResponse>
  <RequestId>B450CAD8-50BC-4506-ADA7-35C6CE63E96B</RequestId>
</ModifyBandwidthPackageAttributeResponse>
```

##### JSON format

```
{
  "RequestId": "B450CAD8-50BC-4506-ADA7-35C6CE63E96B"
}
```

}

## Error codes

| HTTP status code | Error code                             | Error message                                                   | Description                                             |
|------------------|----------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------|
| 404              | InvalidRegionId.NotFound               | The specified RegionId does not exist in our records.           | The specified region ID does not exist.                 |
| 404              | InvalidBandwidthPackageId.NotFound     | The specified bandwidthPackageId does not exist in our records. | The specified Internet Shared Bandwidth does not exist. |
| 400              | InvalidParameter.Name.Malformed        | The specified Name is not valid.                                | The name is invalid.                                    |
| 400              | InvalidParameter.Description.Malformed | The specified Description is not valid.                         | The description is invalid.                             |

[See common error codes](#)

## 15.3 CreateCommonBandwidthPackage

Creates an Internet Shared Bandwidth instance.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter | Type    | Required? | Example value                | Description                                                           |
|-----------|---------|-----------|------------------------------|-----------------------------------------------------------------------|
| Action    | String  | Yes       | CreateCommonBandwidthPackage | The name of this action. Value: CreateCommonBandwidthPackage          |
| Bandwidth | Integer | Yes       | 5                            | The peak bandwidth in Mbps of the Internet Shared Bandwidth instance. |

| Parameter          | Type   | Required? | Example value                       | Description                                                                                                                                                                                                                                                                           |
|--------------------|--------|-----------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RegionId           | String | Yes       | cn-hangzhou                         | The ID of the region where the Internet Shared Bandwidth is located.<br>To query the region ID, call DescribeRegions.                                                                                                                                                                 |
| ClientToken        | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length.                                                                                                   |
| Description        | String | No        | Description                         | The description of the Internet Shared Bandwidth.<br>The description must be 2 to 256 characters in length. It must start with a letter, but cannot start with <code>http://</code> or <code>https://</code> .                                                                        |
| InternetChargeType | String | No        | PayByBandwidth                      | The billing method of the Internet Shared Bandwidth.<br>Valid values:<br>PayByBandwidth (default): Pay by bandwidth<br>PayBy95 : Pay by classic 95th percentile pricing.                                                                                                              |
| Name               | String | No        | test123                             | The name of the Internet Shared Bandwidth.<br>The name must be 2 to 128 characters in length and can contain letters, numbers, periods (.), underscores (_), or hyphens (-). The name must start with a letter, but cannot start with <code>http://</code> or <code>https://</code> . |

| Parameter       | Type    | Required? | Example value      | Description                                                                                                                                                                                                             |
|-----------------|---------|-----------|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ratio           | Integer | No        | 100                | The minimum percentage of the Internet Shared Bandwidth . Value range: 10 to 100 (that is, the range of the minimum percentage is 10% to 100%). This parameter is required when the PayBy95 billing method is selected. |
| ResourceGroupId | String  | No        | rg-acfmxazb4ph6aiy | The ID of the resource group.                                                                                                                                                                                           |

### Request parameters

| Parameter          | Type   | Example value                        | Description                                       |
|--------------------|--------|--------------------------------------|---------------------------------------------------|
| BandwidthPackageId | String | cbwp-bp1vevu8h3ieh5xkcdhdy           | The ID of the Internet Shared Bandwidth instance. |
| RequestId          | String | FF39F653-033E-4CD9-9EDF-3CCA5A71FBC3 | The ID of the request.                            |
| ResourceGroupId    | String | rsFAF424324-033E                     | The ID of the resource group.                     |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=CreateCommonBandwidthPackage
&Bandwidth=5
&RegionId=cn-hangzhou
&<CommonParameters>
```

#### Response example

#### XML format

```
<CreateCommonBandwidthPackageResponse>
  <BandwidthPackageId>cbwp-bp1vevu8h3ieh5xkcdhdy</BandwidthPackageId>
  <RequestId>FF39F653-033E-4CD9-9EDF-3CCA5A71FBC3</RequestId>
```

```
</ CreateComm onBandwidth hPackageRe sponse >
```

### JSON format

```
<{
  " BandwidthP ackageId ":" cbwp - bp1vevu8h3 ieh5xkcdhd y ",
  " RequestId ":" FF39F653 - 033E - 4CD9 - 9EDF - 3CCA5A71FB C3 "
}
```

### Error codes

| HTTP status code | Error code                             | Error message                                         | Description                             |
|------------------|----------------------------------------|-------------------------------------------------------|-----------------------------------------|
| 404              | InvalidRegionId.NotFound               | The specified RegionId does not exist in our records. | The specified region ID does not exist. |
| 400              | MissingParameter                       | Miss mandatory parameter.                             | Required parameters are missing.        |
| 404              | InvalidZoneId.NotFound                 | Specified value of ZoneId is not exists.              | The specified zone does not exist.      |
| 400              | InvalidParameter.Name.Malformed        | The specified Name is not valid.                      | The name is invalid.                    |
| 400              | InvalidParameter.Description.Malformed | The specified Description is not valid.               | The description is invalid.             |

[See common error codes](#)

## 15.4 AddCommonBandwidthPackageIp

Adds an EIP to an Internet Shared Bandwidth instance.

Note the following before you call this action:

- Only Pay-As-You-Go EIPs can be added.
- The EIP and the Internet Shared Bandwidth instance must be in the same region.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter          | Type   | Required? | Example value               | Description                                                                                                                 |
|--------------------|--------|-----------|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| Action             | String | Yes       | AddCommonBandwidthPackageIp | The name of this action. Value: AddCommonBandwidthPackageIp                                                                 |
| BandwidthPackageId | String | Yes       | cbwp-2ze2ic1xd2-qeqk145pn4u | The ID of the Internet Shared Bandwidth instance.                                                                           |
| IpInstanceId       | String | Yes       | eip-2zeerraiwb7uj6i0d0fo3   | The ID of the EIP instance. To query the ID of the EIP instance, call DescribeEipAddresses.                                 |
| RegionId           | String | Yes       | cn-hangzhou                 | The ID of the region where the Internet Shared Bandwidth instance is located. To query the region ID, call DescribeRegions. |

## Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | EC0A01C5-62E2-4E50-B558-CDAA09094B96 | The ID of the request. |

## Examples

## Request example

```
https://vpc.aliyuncs.com/?Action=AddCommonBandwidthPackageIp
&BandwidthPackageId=cbwp-2ze2ic1xd2-qeqk145pn4u
&IpInstanceId=eip-2zeerraiwb7uj6i0d0fo3
&RegionId=cn-hangzhou
&<CommonParameters>
```

## Response example

## XML format

```
{
  "RequestId": "01FDDD49-C4B7-4D2A-A8E5-A93915C450A6"
```

```
}
```

### JSON format

```
<? xml version =" 1 . 0 " encoding =" UTF - 8 " ?>
< AddCommonBandwidthPackageResponse >
  < RequestId > 01FDDD49 - C4B7 - 4D2A - A8E5 - A93915C450 A6 </
  RequestId >
</ AddCommonBandwidthPackageResponse >
```

### Error codes

| HTTP status code | Error code                         | Error message                                                   | Description                                             |
|------------------|------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------|
| 404              | InvalidRegionId.NotFound           | The specified RegionId does not exist in our records.           | The specified region ID does not exist.                 |
| 404              | InvalidBandwidthPackageId.NotFound | The specified bandwidthPackageId does not exist in our records. | The specified Internet Shared Bandwidth does not exist. |

[See common error codes](#)

## 15.5 DeleteCommonBandwidthPackage

Deletes an Internet Shared Bandwidth instance.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter          | Type   | Required? | Example value                | Description                                                  |
|--------------------|--------|-----------|------------------------------|--------------------------------------------------------------|
| Action             | String | Yes       | DeleteCommonBandwidthPackage | The name of this action. Value: DeleteCommonBandwidthPackage |
| BandwidthPackageId | String | Yes       | cbwp-2ze2ic1xd2qeqk145pn4u   | The ID of the Internet Shared Bandwidth instance.            |

| Parameter | Type    | Required? | Example value | Description                                                                                                                                                                                                                                                                                                                                                                             |
|-----------|---------|-----------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RegionId  | String  | Yes       | cn-hangzhou   | The ID of the region where the Internet Shared Bandwidth instance is located.<br>To query the region ID, call DescribeRegions.                                                                                                                                                                                                                                                          |
| Force     | Boolean | No        | false         | Indicates whether to forcibly delete the Internet Shared Bandwidth instance. Valid values: <ul style="list-style-type: none"> <li>· false : Does not forcibly delete the Internet Shared Bandwidth instance if it contains EIP.</li> <li>· true : Forcibly remove all EIPs in the Internet Shared Bandwidth instance and then delete the Internet Shared Bandwidth instance.</li> </ul> |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | B400EF57-60E3-4D61-B8FB-7FA8F72DF5A6 | The ID of the request. |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=DeleteCommonBandwidthPackage
&BandwidthPackageId=cbwp-2ze2ic1xd2-qeqk145pn4-u
&RegionId=cn-hangzhou
&<CommonParameters>
```

#### Response example

#### XML format

```
<DeleteCommonBandwidthPackageResponse>
  <RequestId>B400EF57-60E3-4D61-B8FB-7FA8F72DF5A6</RequestId>
```

```
</ DeleteComm onBandwidthPackageResponse >
```

### JSON format

```
{
  "RequestId ":" B400EF57 - 60E3 - 4D61 - B8FB - 7FA8F72DF5 A6 "
}
```

### Error codes

| HTTP status code | Error code               | Error message                                         | Description                             |
|------------------|--------------------------|-------------------------------------------------------|-----------------------------------------|
| 404              | InvalidRegionId.NotFound | The specified RegionId does not exist in our records. | The specified region ID does not exist. |

[See common error codes](#)

## 15.6 ModifyCommonBandwidthPackageSpec

Modifies the peak bandwidth of an Internet Shared Bandwidth instance.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter          | Type    | Required? | Example value                    | Description                                                           |
|--------------------|---------|-----------|----------------------------------|-----------------------------------------------------------------------|
| Action             | String  | Yes       | ModifyCommonBandwidthPackageSpec | The name of the action. Value: ModifyCommonBandwidthPackageSpec       |
| Bandwidth          | Integer | Yes       | 100                              | The peak bandwidth in Mbps of the Internet Shared Bandwidth instance. |
| BandwidthPackageId | String  | Yes       | cbwp-2ze2ic1xd2qeqk145pn4u       | The ID of the Internet Shared Bandwidth instance.                     |

| Parameter | Type   | Required? | Example value | Description                                                                                                                    |
|-----------|--------|-----------|---------------|--------------------------------------------------------------------------------------------------------------------------------|
| RegionId  | String | Yes       | cn-hangzhou   | The ID of the region where the Internet Shared Bandwidth instance is located.<br>To query the region ID, call DescribeRegions. |

### Response parameters

| Parameter | Type   | Example value                         | Description            |
|-----------|--------|---------------------------------------|------------------------|
| RequestId | String | 7F129000-F929-4AF5-BE8D-BAE434C795306 | The ID of the request. |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=ModifyCommOnBandwidthPackageSpec&Bandwidth=100&BandwidthPackageId=cbwp-2ze2ic1xd2-qeqk145pn4-u&RegionId=cn-hangzhou&<CommonParameters>
```

#### Response example

##### XML format

```
<ModifyCommOnBandwidthPackageSpecResponse>  
  <RequestId>7F129000-F929-4AF5-BE8D-BAE434C795306</RequestId>  
</ModifyCommOnBandwidthPackageSpecResponse>
```

##### JSON format

```
{  
  "RequestId": "7F129000-F929-4AF5-BE8D-BAE434C795306"  
}
```

```
}
```

### Error codes

| HTTP status code | Error code                         | Error message                                           | Description                                                                       |
|------------------|------------------------------------|---------------------------------------------------------|-----------------------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound           | The specified RegionId does not exist in our records.   | The specified region ID does not exist.                                           |
| 404              | InvalidBandwidth.ValueNotSupported | The specified value of Bandwidth not supported.         | The specified peak bandwidth value is not supported.                              |
| 404              | BandwidthPackage.FinancialLocked   | The specified BandwidthPackage has been Financial Lock. | The specified Internet Shared Bandwidth is locked due to an insufficient balance. |

[See common error codes](#)

## 15.7 RemoveCommonBandwidthPackageIp

Removes an EIP from an Internet Shared Bandwidth instance.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter          | Type   | Required? | Example value                  | Description                                                    |
|--------------------|--------|-----------|--------------------------------|----------------------------------------------------------------|
| Action             | String | Yes       | RemoveCommonBandwidthPackageIp | The name of this action. Value: RemoveCommonBandwidthPackageIp |
| BandwidthPackageId | String | Yes       | cbwp-2ze2ic1xd2qeqk145pn4u     | The ID of the Internet Shared Bandwidth instance.              |

| Parameter    | Type   | Required? | Example value             | Description                                                                                                                    |
|--------------|--------|-----------|---------------------------|--------------------------------------------------------------------------------------------------------------------------------|
| IpInstanceId | String | No        | eip-2zeerraiwb7uj6i0d0fo3 | The ID of the EIP instance.<br>To query the ID of the EIP instance, call DescribeEipAddresses.                                 |
| RegionId     | String | Yes       | cn-hangzhou               | The ID of the region where the Internet Shared Bandwidth instance is located.<br>To query the region ID, call DescribeRegions. |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 0876DAB2-6A86-479B-96BC-C5A2458568D2 | The ID of the request. |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=RemoveCommonBandwidthPackageIp
&BandwidthPackageId=cbwp-2ze2ic1xd2-qeqk145pn4-u
&IpInstanceId=eip-2zeerraiwb7uj6i0d0fo3
&RegionId=cn-hangzhou
&<CommonParameters>
```

#### Response example

##### XML format

```
<RemoveCommonBandwidthPackageIpResponse>
  <RequestId>0876DAB2-6A86-479B-96BC-C5A2458568D2</RequestId>
</RemoveCommonBandwidthPackageIpResponse>
```

##### JSON format

```
{
  "RequestId": "0876DAB2-6A86-479B-96BC-C5A2458568D2"
```

```
}
```

**Error codes**

| HTTP status code | Error code                         | Error message                                                   | Description                                                      |
|------------------|------------------------------------|-----------------------------------------------------------------|------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound           | The specified RegionId does not exist in our records.           | The specified region ID does not exist.                          |
| 404              | InvalidBandwidthPackageId.NotFound | The specified bandwidthPackageId does not exist in our records. | The specified Internet Shared Bandwidth instance does not exist. |

[See common error codes](#)

# 16 EIP

## 16.1 ModifyEipAddressAttribute

Modifies the name, description information, and bandwidth peak of the specified EIP.

### Request parameters

| Name          | Type   | Required | Description                                                                                                                                                                                                                                 |
|---------------|--------|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action        | String | Yes      | The action to perform. Valid value: ModifyEipAddressAttribute                                                                                                                                                                               |
| Allocation Id | String | Yes      | The ID of the EIP.                                                                                                                                                                                                                          |
| Bandwidth     | String | No       | The peak bandwidth in Mbps of the EIP.                                                                                                                                                                                                      |
| Name          | String | No       | The name of the EIP.<br>The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens. The name must start with an English letter, but cannot start with <code>http ://</code> or <code>https ://</code> . |
| Description   | String | No       | The description of the EIP.<br>The description can contain from 2 to 256 characters. The description must start with English letters, but cannot start with <code>http ://</code> or <code>https ://</code> .                               |

### Response parameters

| Name      | Type   | Description            |
|-----------|--------|------------------------|
| RequestId | String | The ID of the request. |

### Examples

#### Request example

```
https :// vpc . aliyuncs . com /? Action = ModifyEipAddressAttribute
& Allocation Id = eip - 25877c70x
& Name = eip1
```

## &amp; CommonParameters

## Response example

## • XML format

```
<? xml version="1.0" encoding="UTF-8"? >
< ModifyEipAddressAttributeResponse >
  < RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 </
  RequestId >
</ ModifyEipAddressAttributeResponse >
```

## • JSON format

```
{
  "RequestId": "0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0"
}
```

## 16.2 ModifyEipAddressAttribute

Modify the name, description, and peak bandwidth of an EIP.

## Request parameters

| Name          | Type   | Required or not | Example value | Description                                                                                                                                                                                                                                                          |
|---------------|--------|-----------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action        | String | Yes             |               | The action to perform. Valid value: <code>Modifieipa ddressattr ibute</code>                                                                                                                                                                                         |
| Allocation Id | String | Yes             |               | The ID of the EIP.                                                                                                                                                                                                                                                   |
| Bandwidth     | String | No              |               | The peak bandwidth in Mbps of the EIP.                                                                                                                                                                                                                               |
| Name          | String | No              |               | The name of the EIP.<br>The name must be 2-128 characters in length and begin with an English letter, can contain numbers, point number (.), underline (_) and short line (-). However, the name cannot start with <code>http ://</code> or <code>https ://</code> . |
| Description   | String | No              |               | The description for the EIP.<br>The description must be 2-256 characters in length and must start with English letters. However, the description cannot start with <code>http ://</code> or <code>https ://</code> .                                                 |

## Response parameters

| Name      | Type   | Description            |
|-----------|--------|------------------------|
| RequestId | String | The ID of the request. |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=ModifyEipAddressAttribute
&AllocationId=eip-25877c70x
&Name=eip1
&CommonParameters
```

### Response example

- XML format

```
<?xml version="1.0" encoding="UTF-8"?>
<ModifyEipAddressAttributeResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCA C0</RequestId>
</ModifyEipAddressAttributeResponse>
```

- JSON format

```
{
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCA C0"
}
```

## 16.3 AllocateEipAddress

Creates an Elastic IP Address (EIP).

After you call this action, an EIP in the available state is allocated in the specified region. EIP supports ICMP, TCP, and UDP protocols, but does not support the IGMP and SCTP protocols.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter   | Type   | Required? | Example value                       | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------|--------|-----------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action      | String | Yes       | AllocateEipAddress                  | The name of this action. Value: AllocateEipAddress                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| RegionId    | String | Yes       | cn-hangzhou                         | The ID of the region to which the EIP belongs.<br>To query the region ID, call DescribeRegions.                                                                                                                                                                                                                                                                                                                                                                                      |
| AutoPay     | string | No        | false                               | Indicates whether to pay the order automatically. Valid values: <ul style="list-style-type: none"> <li>false : Do not enable automatic payment. After an order is generated, you need to go to the order center to complete payment.</li> <li>true : Enable automatic payment.</li> </ul> <div>  <b>Note:</b><br/>This parameter is required if the InstanceChargeType value is PrePaid . </div> |
| Bandwidth   | String | No        | 5                                   | The peak bandwidth in Mbps of the EIP. Default value: 5 .                                                                                                                                                                                                                                                                                                                                                                                                                            |
| ClientToken | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It must be 64 ASCII characters in length.                                                                                                                                                                                                                                                                                                       |
| ISP         | String | No        | BGP                                 | The type of the line. Default value:BGP.                                                                                                                                                                                                                                                                                                                                                                                                                                             |

| Parameter          | Type   | Required? | Example value  | Description                                                                                                                                                                                                                                                                                                                                                                                                 |
|--------------------|--------|-----------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| InstanceChargeType | String | No        | PostPaid       | The billing method of the EIP.<br>Valid values: <ul style="list-style-type: none"> <li>PostPaid (default): Pay-As-You-Go</li> </ul>                                                                                                                                                                                                                                                                         |
| InternetChargeType | String | No        | PayByBandwidth | The billing method of the EIP.<br>Valid values: <ul style="list-style-type: none"> <li>PayByTraffic : Billing based on traffic.</li> </ul>                                                                                                                                                                                                                                                                  |
| Netmode            | String | No        | Public         | The network type. Default value:Public.                                                                                                                                                                                                                                                                                                                                                                     |
| Period             | String | No        | 10             | The validity period of subscription. Valid values: <ul style="list-style-type: none"> <li>Monthly subscription valid value range: 1 to 9.</li> <li>Yearly subscription valid value range: 1 to 3.</li> </ul> <div>  <b>Note:</b><br/>This parameter is required if the InstanceChargeType parameter is PrePaid . </div> |
| PricingCycle       | String | No        | Month          | The billing cycle of subscription. Valid values: <ul style="list-style-type: none"> <li>Month (default): billing on a monthly basis</li> <li>Year : billing on a yearly basis</li> </ul> <div>  <b>Note:</b><br/>This parameter is required if the InstanceChargeType value is PrePaid . </div>                         |

| Parameter       | Type   | Required? | Example value      | Description                              |
|-----------------|--------|-----------|--------------------|------------------------------------------|
| ResourceGroupId | String | No        | rg-acfmxazb4ph6aiy | The ID of the enterprise resource group. |

### Response parameters

| Parameter       | Type   | Example value                        | Description                                                                                     |
|-----------------|--------|--------------------------------------|-------------------------------------------------------------------------------------------------|
| EipAddress      | String | 12.34.56.78                          | The allocated EIP.                                                                              |
| AllocationId    | String | 12.34.56.78                          | The ID of the EIP.                                                                              |
| OrderId         | String | 10                                   | Order number. This parameter is returned only when the Subscription billing method is selected. |
| RequestId       | String | 4EC47282-1B74-4534-BD0E-403F3EE64CAF | The ID of the request.                                                                          |
| ResourceGroupId | String | rg-acfmxazb4ph6aiy                   | The ID of the enterprise resource group.                                                        |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=AllocateEipAddress
&RegionId=cn-beijing
&CommonParameters
```

#### Response example

- XML format

```
<AllocateEipAddressResponse>
  <AllocationId>eip-25877c70x</AllocationId>
  <EipAddress>123.56.0.206</EipAddress>
  <RequestId>B6B9F518-60F8-4D81-9242-1207B356754D</RequestId>
</AllocateEipAddressResponse>
```

- JSON format

```
{
  "RequestId": "B6B9F518-60F8-4D81-9242-1207B356754D",
  "EipAddress": "123.56.0.206",
```

```
" Allocation Id ":" eip - 25877c70x "
}
```

### Error codes

| HTTP status code | Error code               | Error message                                             | Description                                                                                                                                                  |
|------------------|--------------------------|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 403              | Forbidden                | User not authorized to operate on the specified resource. | You are not authorized to operate on this resource.                                                                                                          |
| 400              | InvalidParameter         | Specified value of "InternetChargeType" is not valid      | The value of the InternetChargeType parameter is invalid.                                                                                                    |
| 400              | InvalidParameter         | Specified value of "Bandwidth" is not valid.              | The specified bandwidth value is invalid.                                                                                                                    |
| 400              | QuotaExceeded.Eip        | Elastic IP address quota exceeded.                        | The quota of EIPs has been reached. To increase the quota, open a ticket . Alternatively, we recommend that you use NAT Gateway to obtain more IP addresses. |
| 400              | ReserveIpFail            | Reserve eip failed.                                       | The operation failed to reserve the EIP.                                                                                                                     |
| 400              | InvalidRegion.NotSupport | The specified region does not support.                    | The specified region does not support this operation .                                                                                                       |

[See common error codes](#)

## 16.4 AssociateEipAddress

Attaches an EIP to a cloud product instance in the same region.

Note the following when you call this action:

- You can attach an EIP to a VPC ECS instance, a VPC SLB instance, or a NAT Gateway in the same region.

- To attach an EIP to a NAT Gateway, make sure that there was no NAT bandwidth package under your account before January 26, 2018. Otherwise open a ticket to attach the EIP to the NAT Gateway.

## Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter        | Type   | Required? | Example value             | Description                                                                                                                                                         |
|------------------|--------|-----------|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action           | String | Yes       | AssociateEipAddress       | The name of this action. Value: AssociateEipAddress                                                                                                                 |
| AllocationId     | String | Yes       | eip-2zeerraiwb7uj6i0d0fo3 | The ID of the EIP.                                                                                                                                                  |
| InstanceId       | String | Yes       | i-2zebb08phy cz6pok9xwe   | The ID of the instance to attach.                                                                                                                                   |
| RegionId         | String | Yes       | cn-hangzhou               | The ID of the region to which the EIP belongs.                                                                                                                      |
| InstanceRegionId | String | No        | cn-hangzhou               | The ID of the region to which the attached instance belongs.                                                                                                        |
| InstanceType     | String | No        | EcsInstance               | The type of the cloud product instance to attach.<br>Valid values: Nat   SlbInstance   EcsInstance   NetworkInterface                                               |
| PrivateIpAddress | String | No        | 192.168.0.4               | An IP address in the CIDR block of the VSwitch.<br>If you leave the option empty, the system allocates a private IP address according to the VPC ID and VSwitch ID. |

## Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | C0FD0EED-F90D-4479-803D-DD62335357E5 | The ID of the request. |

## Examples

### Request example

```
http ( s ):// vpc . aliyuncs . com /? Action = AssociateE ipAddress
& Allocation Id = eip - 2zeerraiwb 7uj6i0d0fo 3
& InstanceId = i - 2zebb08phy cz6pok9xwe
&< CommonPara meters >
```

### Response example

- XML format

```
< AssociateE ipAddressR esponse >
  < RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 </
  RequestId >
</ AssociateE ipAddressR esponse >
```

- JSON format

```
{
  " RequestId ":" 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 "
}
```

### Error codes

| HTTP status code | Error code                        | Error message                                                              | Description                                                                                                                                                                             |
|------------------|-----------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 400              | InvalidAssociation.<br>Duplicated | Specified instance already is associated.                                  | This instance is already attached to an EIP or Global Acceleration instance. You must delete this instance before you can attach it to a different EIP or Global Acceleration instance. |
| 400              | OperationDenied                   | Specified instance is not in VPC.                                          | The specified instance does not exist in the VPC.                                                                                                                                       |
| 400              | InvalidParameter.<br>Mismatch     | Specified elastic IP address and ECS instance are not in the same region . | The specified EIP and ECS instances are not in the same region.                                                                                                                         |

| HTTP status code | Error code                             | Error message                                                                     | Description                                                                                                      |
|------------------|----------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------|
| 400              | IncorrectEipStatus                     | Current elastic IP status does not support this operation                         | The current status of the specified EIP address does not support this operation.                                 |
| 404              | InvalidInstanceId.NotFound             | Specified instance does not exist.                                                | The specified instance does not exist.                                                                           |
| 400              | IncorrectInstanceStatus                | Current instance status does not support this operation.                          | The current instance status does not support this operation.                                                     |
| 400              | InvalidInstanceType.ValueNotSupported  | The specified value of InstanceType is not supported.                             | The value of the InstanceType parameter is invalid.                                                              |
| 400              | IncorrectHaVipStatus                   | HaVip can be operated by this action only when it's status is Available or InUse. | You can perform this operation only if the HAVIP is the Available or InUse state.                                |
| 400              | InvalidParameter                       | The specified parameter is not valid.                                             | The specified parameter value is invalid.                                                                        |
| 400              | OperationDenied                        | Eip of default vpc not allow this operation                                       | The EIP of the default VPC does not support this operation.                                                      |
| 400              | Forbidden                              | The eip instance owner error                                                      | You need to be authorized to call the EIP. Please check that you have the appropriate permissions and try again. |
| 400              | InvalidBindingStatus                   | The eip binding status invalid.                                                   | The attaching status of the EIP is invalid.                                                                      |
| 400              | BIND_INSTANCE_HAVE_PORTMAP_OR_BIND_EIP | The instance may have portMap or already bind eip.                                | You must delete the existing port forwarding rule associated with the ECS instance first.                        |
| 400              | BIND_INSTANCE_OWNER_ERROR              | Cannot operate the eip.                                                           | You cannot operate this EIP.                                                                                     |

| HTTP status code | Error code                   | Error message                        | Description                                     |
|------------------|------------------------------|--------------------------------------|-------------------------------------------------|
| 404              | InvalidAllocationId.NotFound | Specified allocation ID is not found | The specified public IP address does not exist. |

[See common error codes](#)

## 16.5 UnassociateEipAddress

Detaches an EIP from a cloud resource.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter    | Type   | Required? | Example value             | Description                                                                                                                                                                                                                           |
|--------------|--------|-----------|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action       | String | Yes       | UnassociateEipAddress     | The name of this action. Value: UnassociateEipAddresses                                                                                                                                                                               |
| AllocationId | String | Yes       | eip-2zeerraiwb7uj6i0d0fo3 | The ID of the EIP.                                                                                                                                                                                                                    |
| InstanceId   | String | Yes       | i-12345678                | The ID of the cloud resource.                                                                                                                                                                                                         |
| RegionId     | String | Yes       | cn-hangzhou               | The ID of the region to which the EIP belongs.                                                                                                                                                                                        |
| InstanceType | String | No        | EcsInstance               | The type of the cloud resource. Valid values: <ul style="list-style-type: none"> <li>EcsInstance (default): a VPC ECS instance</li> <li>SlbInstance : a VPC SLB instance</li> <li>Nat : NAT Gateway</li> <li>HaVip : HAVIP</li> </ul> |

## Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 220F3179-5238-47F0-A0CA-1272AA2BC41F | The ID of the request. |

## Examples

## Request example

```
https://vpc.aliyuncs.com/?Action=UnassociateEipAddresses
&AllocationId=eip-25877c70x
&InstanceId=i-25skktcp4
&<CommonParameters>
```

## Response example

## • XML format

```
<UnassociateEipAddressesResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCA C0</
  RequestId>
</UnassociateEipAddressesResponse>
```

## • JSON format

```
{
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCA C0"
}
```

## Error codes

| HTTP status code | Error code                 | Error message                                                   | Description                                                                      |
|------------------|----------------------------|-----------------------------------------------------------------|----------------------------------------------------------------------------------|
| 400              | IncorrectEipStatus         | Current elastic IP status does not support this operation.      | The current status of the specified EIP address does not support this operation. |
| 400              | InvalidInstanceId.NotFound | Specified instance does not exist.                              | The specified instance does not exist.                                           |
| 400              | IncorrectInstanceStatus    | The current status of instance does not support this operation. | The current instance status does not support this operation.                     |

| HTTP status code | Error code                                | Error message                                                                                 | Description                                                                              |
|------------------|-------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| 400              | InvalidInstanceType.<br>ValueNotSupported | The specified value of InstanceType is not supported.                                         | The InstanceType value is invalid.                                                       |
| 400              | IncorrectHaVipStatus                      | This operation is denied because satus of the specified HaVip is neither Available nor InUse. | This operation cannot be performed because the HAVIP is in the Available or InUse state. |
| 400              | OperationDenied                           | Eip of default vpc not allow this operation                                                   | The EIP of the default VPC does not support this operation.                              |
| 404              | Forbidden.<br>RegionNotFound              | Specified region is not found during access authentication.                                   | The specified region does not exist.                                                     |
| 400              | InvalidParameter                          | The specified parameter is not valid.                                                         | The specified parameter value is invalid.                                                |
| 400              | Forbbiden                                 | The eip instance owener error                                                                 | You are not authorized to call this EIP.                                                 |
| 400              | InvalidBindingStatus                      | The eip binding status invalid.                                                               | The attaching status of the EIP is invalid.                                              |

[See common error codes](#)

## 16.6 DescribeEipAddresses

Queries EIPs in a region.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter              | Type   | Required? | Example value             | Description                                                                                                                                                                                                                                                                                                                                                                                                   |
|------------------------|--------|-----------|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action                 | String | Yes       | DescribeEipAddresses      | The name of this action. Value: DescribeEipAddresses                                                                                                                                                                                                                                                                                                                                                          |
| RegionId               | String | Yes       | cn-hangzhou               | The ID of the region to which the EIP belongs.<br>To query the region ID, call DescribeRegions.                                                                                                                                                                                                                                                                                                               |
| AllocationId           | String | No        | eip-2zeerraiwb7uj6i0d0fo3 | The ID of the EIP.                                                                                                                                                                                                                                                                                                                                                                                            |
| AssociatedInstanceId   | String | No        | i-2zebb08physcz6pok9xwe   | The ID of the cloud resource to which the EIP is attached.                                                                                                                                                                                                                                                                                                                                                    |
| AssociatedInstanceType | String | No        | EcsInstance               | The cloud resource to which the EIP is bound. Valid values: <ul style="list-style-type: none"> <li>EcsInstance (default): an ECS instance of the VPC network</li> <li>SlbInstance: an SLB instance of the VPC network</li> <li>Nat: NAT Gateway</li> <li>HaVip: HAVIP instance</li> </ul> Each ECS and SLB instance can be attached to only one EIP. However, a NAT Gateway can be attached to multiple EIPs. |
| ChargeType             | String | No        | PostPaid                  | The billing method of the EIP. <ul style="list-style-type: none"> <li>PostPaid: Pay-As-You-Go.</li> <li>PrePaid: Subscription.</li> </ul>                                                                                                                                                                                                                                                                     |
| EipAddress             | String | No        | 116.62.222.28             | The IP address of the EIP. After it is specified, you can view the information related to the EIP.                                                                                                                                                                                                                                                                                                            |
| Filter.1.Key           | String | No        | Filter.1.Name             | The filter condition to use.                                                                                                                                                                                                                                                                                                                                                                                  |

| Parameter              | Type    | Required? | Example value         | Description                                                                                                                                                                                                          |
|------------------------|---------|-----------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Filter . 1 . Value     | String  | No        | value1                | The value of the corresponding filter condition.                                                                                                                                                                     |
| Filter . 2 . Key       | String  | No        | Filter.2. Description | The filter condition to use.                                                                                                                                                                                         |
| Filter . 2 . Value     | String  | No        | value2                | The value of the corresponding filter condition.                                                                                                                                                                     |
| ISP                    | String  | No        | BGP                   | The service provider. In most cases, BGP data centers are used.                                                                                                                                                      |
| IncludeReservationData | Boolean | No        | true                  | Indicates whether order data that has not taken effect is included. Default value: false.                                                                                                                            |
| LockReason             | String  | No        | financial             | The locking type. <ul style="list-style-type: none"> <li>Financial: locked because the bill is overdue.</li> <li>Security: locked for security protection.</li> </ul>                                                |
| PageNumber             | Integer | No        | 10                    | The number of pages to return. Default value: 1 .                                                                                                                                                                    |
| PageSize               | Integer | No        | 10                    | The number of rows per page. Maximum value: 50 . Default value: 10 .                                                                                                                                                 |
| ResourceGroupId        | String  | No        | rg-acfmxazb4ph6aiy    | The ID of the resource group.                                                                                                                                                                                        |
| Status                 | String  | No        | Available             | The status of the EIP. Valid values: <ul style="list-style-type: none"> <li>Associating : being attached</li> <li>Unassociating : being detached</li> <li>InUse : attached</li> <li>Available : available</li> </ul> |

## Response parameters

| Parameter                 | Type   | Example value                  | Description                                                                                                               |
|---------------------------|--------|--------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| EipAddresses              | N/A    | N/A                            | A list of EIPs.                                                                                                           |
| └Allocation<br>Id         | String | eip-2zeerraiwb<br>7uj6i0d0fo3  | The ID of the EIP.                                                                                                        |
| └Allocation<br>Time       | String | 2017-06-08T12:20<br>:55        | The time at which the EIP was created.                                                                                    |
| └AvailableR<br>egions     | N/A    | cn-hangzhou                    | The ID of the region.                                                                                                     |
| └Bandwidth                | String | 5                              | The peak bandwidth in Mbps of the EIP.                                                                                    |
| └BandwidthP<br>ackageId   | String | cbwp-bp1ego3i4j<br>07c9vrg0z6o | The ID of the Internet Shared Bandwidth to which the EIP is added.                                                        |
| └BandwidthP<br>ackageType | String | CommonBand<br>widthPackage     | The type of the Internet Shared Bandwidth.                                                                                |
| └ChargeType               | String | PayByTraffic                   | The billing method of the EIP.                                                                                            |
| └Descriptio<br>n          | String | Description                    | The description of the EIP.                                                                                               |
| └EipBandwid<br>th         | String | 101                            | The bandwidth of the EIP before it is added to or removed from Internet Shared Bandwidth                                  |
| └ExpiredTime              | String | 2017-06-08T12:20<br>:55        | The expiration time according to ISO8601 standard. UTC time must be used. Format: YYYY-MM-DDThh:mmZ.                      |
| └HDMonitorS<br>tatus      | String | false                          | Indicates whether the EIP has enabled second-level monitoring.                                                            |
| └HasReserva<br>tionData   | String | wweayhddrhht                   | The value is true only if the IncludeReservationData parameter is true and there is order data that has not taken effect. |
| └ISP                      | String | BGP                            | The service provider. Usually, BGP data centers are used.                                                                 |

| Parameter                                  | Type   | Example value           | Description                                                                                                                                                                                           |
|--------------------------------------------|--------|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>InstanceId</code>                    | String | vpc-bp15zckdt37pq72zvw3 | The ID of the instance to which the EIP is attached.                                                                                                                                                  |
| <code>InstanceId</code>                    | String | cn-hangzhou             | The ID of the region to which the attached resource belongs.                                                                                                                                          |
| <code>InstanceType</code>                  | String | EcsInstance             | The type of the attached instance.                                                                                                                                                                    |
| <code>InternetChargeType</code>            | String | PayByBandwidth          | The billing method of the EIP.                                                                                                                                                                        |
| <code>IpAddress</code>                     | String | 2017-06-08T12:20:55     | The IP address of the EIP.                                                                                                                                                                            |
| <code>Name</code>                          | String | EIP                     | The name of the EIP.                                                                                                                                                                                  |
| <code>OperationLocks</code>                | N/A    | financial               | The reason that the EIP is locked.<br>Valid values: <ul style="list-style-type: none"> <li>financial: locked because the bill is overdue</li> <li>security: locked for security protection</li> </ul> |
| <code>LockReason</code>                    | String | financial               | The reason that the EIP is locked.<br>Valid values:<br>financial: locked because the bill is overdue<br>security: locked for security protection                                                      |
| <code>RegionId</code>                      | String | cn-hangzhou             | The ID of the region to which the EIP belongs.                                                                                                                                                        |
| <code>ReservationActiveTime</code>         | String | 2019-03-11T16:00:00Z    | The time at which the renewal takes effect.                                                                                                                                                           |
| <code>ReservationBandwidth</code>          | String | 12                      | The renewal bandwidth.                                                                                                                                                                                |
| <code>ReservationInternetChargeType</code> | String | PayByBandwidth          | The payment type of renewal.                                                                                                                                                                          |

| Parameter                   | Type    | Example value                        | Description                                                                                                                                                                              |
|-----------------------------|---------|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>ReservationOrderType</b> | String  | RENEWCHANGE                          | The type of the renewal order. <ul style="list-style-type: none"> <li>RENEWCHANGE: renewal change</li> <li>TEMP_UPGRADE: temporary upgrade</li> <li>UPGRADE: upgrade</li> </ul>          |
| <b>ResourceGroupId</b>      | String  | rg-acfmxazb4ph6aiy                   | The ID of the resource group.                                                                                                                                                            |
| <b>Status</b>               | String  | Associating                          | The status of the EIP. <ul style="list-style-type: none"> <li>Associating: attaching</li> <li>Unassociating: detaching</li> <li>InUse: attached</li> <li>Available: available</li> </ul> |
| <b>TotalCount</b>           | Integer | 10                                   | The number of queried entries.                                                                                                                                                           |
| <b>PageNumber</b>           | Integer | 10                                   | The current page number.                                                                                                                                                                 |
| <b>PageSize</b>             | Integer | 10                                   | The number of entries per page.                                                                                                                                                          |
| <b>RequestId</b>            | String  | 4EC47282-1B74-4534-BD0E-403F3EE64CAF | The ID of the request.                                                                                                                                                                   |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DescribeEipAddresses
&RegionId=cn-hangzhou
&CommonParameters
```

### Response example

#### • XML format

```
<DescribeEipAddressesResponse>
  <RequestId>7EEF2D6B-D207-4197-AE37-01279C888757</RequestId>
  <PageNumber>1</PageNumber>
  <EipAddresses>
    <EipAddress>
      <ChargeType>PostPaid</ChargeType>
      <AllocationTime>2018-01-15T11:17:30Z</AllocationTime>
    </EipAddress>
  </EipAddresses>
</DescribeEipAddressesResponse>
```

```

    < ResourceGroup Id > rg - acfmxazb4p h6aiy </ ResourceGroup Id >
    < InstanceId />
    < Description />
    < IpAddress > 59 . 110 . xx . xx </ IpAddress >
    < Allocation Id > eip - 2ze88m67qx 5zxxxxx </ Allocation Id >
  >
  < InternetChargeType > PayByTraffic </ InternetChargeType >
  < InstanceType />
  < Name />
  < Status > Available </ Status >
  < BandwidthPackageId />
  < InstanceRegionId />
  < BandwidthPackageType />
  < RegionId > cn - beijing </ RegionId >
  < OperationLocks />
  < ExpiredTime />
  < AvailableRegions >
    < AvailableRegion > cn - beijing </ AvailableRegion >
  </ AvailableRegions >
  < Bandwidth > 1 </ Bandwidth >
</ EipAddress >
</ EipAddresses >
< TotalCount > 1 </ TotalCount >
< PageSize > 10 </ PageSize >
</ DescribeEipAddresses Response >

```

#### JSON format

```

{
  "DescribeEipAddresses Response":{
    "PageNumber ":" 1 ",
    "EipAddresses ":{
      "EipAddress ":{
        "ChargeType ":" PostPaid ",
        "Status ":" Available ",
        "RegionId ":" cn - beijing ",
        "ResourceGroup Id ":" rg - acfmxazb4p h6aiy ",
        "Allocation Time ":" 2018 - 01 - 15T11 : 17 : 30Z ",
        "IpAddress ":" 59 . 110 . xx . xx ",
        "Allocation Id ":" eip - 2ze88m67qx 5zxxxxx ",
        "AvailableRegions ":{
          "AvailableRegion ":" cn - beijing "
        },
        "InternetChargeType ":" PayByTraffic ",
        "Bandwidth ":" 1 "
      }
    },
    "TotalCount ":" 1 ",
    "PageSize ":" 10 ",
    "RequestId ":" 7EEF2D6B - D207 - 4197 - AE37 - 01279C8887 57 "
  }
}

```

}

## Error codes

| HTTP status code | Error code                                          | Error message                                                   | Description                                             |
|------------------|-----------------------------------------------------|-----------------------------------------------------------------|---------------------------------------------------------|
| 404              | Forbidden.<br>RegionNotFound                        | Specified region is not found during access authentication.     | The specified region does not exist.                    |
| 404              | InvalidLockReason.<br>NotFound                      | The specified LockReason is not found                           | The reason that the EIP is locked was not found.        |
| 400              | InvalidAssociatedInstanceType.<br>ValueNotSupported | The specified value of AssociatedInstanceType is not supported. | The specified Associated InstanceType value is invalid. |
| 400              | InvalidChargeType.<br>ValueNotSupported             | The specified ChargeType is not supported.                      | This billing method is not supported.                   |

[See common error codes](#)

## 16.7 ReleaseEipAddress

Releases an Elastic IP Address (EIP).



**Note:**

Only EIPs in the Available state can be released.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter    | Type   | Required? | Example value             | Description                                       |
|--------------|--------|-----------|---------------------------|---------------------------------------------------|
| Action       | String | Yes       | ReleaseEipAddress         | The name of this action. Value: ReleaseEipAddress |
| AllocationId | String | Yes       | eip-2zeerraiwb7uj6i0d0fo3 | The ID of the EIP.                                |
| RegionId     | String | Yes       | cn-hangzhou               | The ID of the region to which the EIP belongs.    |

## Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 748C38F6-9A3D-482E-83FB-DB6C39C68AEA | The ID of the request. |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=ReleaseEipAddress
&AllocationId=eip-25877c70x
&<CommonParameters>
```

### Response example

- XML format

```
<?xml version="1.0" encoding="UTF-8"?>
<ReleaseEipAddressResponse>
  <RequestId>748C38F6-9A3D-482E-83FB-DB6C39C68AEA</RequestId>
</ReleaseEipAddressResponse>
```

- JSON format

```
{
  "RequestId": "748C38F6-9A3D-482E-83FB-DB6C39C68AEA"
```

}

## Error codes

| HTTP status code | Error code                                       | Error message                                                | Description                                                                                                        |
|------------------|--------------------------------------------------|--------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|
| 404              | InvalidAllocationId.NotFound                     | Specified allocation ID is not found                         | The specified public IP address does not exist.                                                                    |
| 400              | IncorrectEipStatus                               | Current elastic IP status does not support this operation.   | The current status of the specified EIP address does not support this operation.                                   |
| 500              | InternalError                                    | The request processing has failed due to some unknown error. | An error occurred while the request was being processed.                                                           |
| 404              | Forbidden.RegionNotFound                         | Specified region is not found during access authentication.  | The specified region does not exist.                                                                               |
| 400              | Forbidden.ChargeTypeIsPrepaid                    | It's forbidden to release a prepaid EIP                      | The subscription EIP addresses cannot be released.                                                                 |
| 400              | Forbidden                                        | The eip instance owner error                                 | You need to be authorized to use the specified EIP. Check that you have the appropriate permissions and try again. |
| 400              | TaskConflict.AssociateGlobalAccelerationInstance | Operate too frequent.                                        | The server cannot process this many requests. Please try again later.                                              |

[See common error codes](#)

# 17 Region

## 17.1 DescribeZones

Queries one or more zones in a region.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter | Type   | Required? | Example value | Description                                                            |
|-----------|--------|-----------|---------------|------------------------------------------------------------------------|
| Action    | String | Yes       | DescribeZones | The name of this action. Value: DescribeZones                          |
| RegionId  | String | Yes       | cn-hangzhou   | The ID of the region.<br>To query the region ID, call DescribeRegions. |

### Response parameters

| Parameter              | Type   | Example value                        | Description            |
|------------------------|--------|--------------------------------------|------------------------|
| Zones                  | N/A    | N/A                                  | A list of zones.       |
| <sup>1</sup> LocalName | String | China Hangzhou Zone B                | The name of the zone.  |
| <sup>1</sup> ZoneId    | String | cn-hangzhou-b                        | The ID of the zone.    |
| RequestId              | String | 6FEA0CF3-D3B9-43E5-A304-D217037876A8 | The ID of the request. |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?RegionId=cn-hangzhou  
&<CommonParameters>
```

#### Response example

## XML format

```
<? xml version =" 1 . 0 " encoding =" UTF - 8 " ?>
< DescribeZonesResponse >
< RequestId > 6FEA0CF3 - D3B9 - 43E5 - A304 - D217037876 A8 </
RequestId >
< Zones >
  < Zone >
    < ZoneId > cn - hangzhou - b </ ZoneId >
    < LocalName > China Hangzhou Zone B </ LocalName >
  </ Zone >
  < Zone >
    < ZoneId > cn - hangzhou - d </ ZoneId >
    < LocalName > China Hangzhou Zone D </ LocalName >
  </ Zone >
  < Zone >
    < ZoneId > cn - hangzhou - e </ ZoneId >
    < LocalName > China Hangzhou Zone E </ LocalName >
  </ Zone >
  < Zone >
    < ZoneId > cn - hangzhou - f </ ZoneId >
    < LocalName > China Hangzhou Zone F </ LocalName >
  </ Zone >
  < Zone >
    < ZoneId > cn - hangzhou - g </ ZoneId >
    < LocalName > China Hangzhou Zone G </ LocalName >
  </ Zone >
  < Zone >
    < ZoneId > cn - hangzhou - h </ ZoneId >
    < LocalName > China Hangzhou Zone H </ LocalName >
  </ Zone >
</ Zones >
< DescribeZonesResponse >
```

## JSON format

```
{
  "RequestId ":" 6FEA0CF3 - D3B9 - 43E5 - A304 - D217037876 A8 ",
  "Zones ":{
    "Zone ":[
      {
        "ZoneId ":" cn - hangzhou - b ",
        "LocalName ":" China Hangzhou Zone B "
      },
      {
        "ZoneId ":" cn - hangzhou - d ",
        "LocalName ":" China Hangzhou Zone D "
      },
      {
        "ZoneId ":" cn - hangzhou - e ",
        "LocalName ":" China Hangzhou Zone E "
      },
      {
        "ZoneId ":" cn - hangzhou - f ",
        "LocalName ":" China Hangzhou Zone F "
      },
      {
        "ZoneId ":" cn - hangzhou - g ",
        "LocalName ":" China Hangzhou Zone G "
      },
      {
        "ZoneId ":" cn - hangzhou - h ",
```

```

    " LocalName ":" China    Hangzhou    Zone    H "
  }
]
}
}

```

## Error codes

[See common error codes](#)

## 17.2 DescribeAccessPoints

Queries one or more physical connection access points in a region.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter              | Type       | Required? | Example value        | Description                                                                                    |
|------------------------|------------|-----------|----------------------|------------------------------------------------------------------------------------------------|
| Action                 | String     | Yes       | DescribeAccessPoints | The name of this action. Value: DescribeAccessPoints                                           |
| RegionId               | String     | Yes       | cn-hangzhou          | The region to which the access point belongs.<br>To query the region ID, call DescribeRegions. |
| Filter . N . Key       | String     | No        | Status               | The type of the n-th filter. Value range of N: 1 to 5.                                         |
| Filter . N . Value . M | RepeatList | No        | recommend            | The m-th value of the n-th filter. Value range of M: 1 to 5.                                   |
| HostOperator           | String     | No        | Telecom              | The service provider to which the data center connected to the access point belongs.           |
| Name                   | String     | No        | test                 | The name of the access point.                                                                  |
| PageNumber             | Integer    | No        | 2                    | The number of pages to return. Default value: 1.                                               |

| Parameter | Type    | Required ? | Example value | Description                                                          |
|-----------|---------|------------|---------------|----------------------------------------------------------------------|
| PageSize  | Integer | No         | 10            | The number of rows per page. Maximum value: 50 . Default value: 10 . |

### Response parameters

| Parameter         | Type    | Example value                        | Description                                                |
|-------------------|---------|--------------------------------------|------------------------------------------------------------|
| AccessPointSet    | N/A     | N/A                                  | A list of access points.                                   |
| └AccessPointId    | String  | ap-cn-beijing-ft-A                   | The ID of the access point.                                |
| └AttachedRegionNo | String  | cn-beijing                           | The region of the access point.                            |
| └Description      | String  | ap1                                  | The description of the access point.                       |
| └HostOperator     | String  | CNIX                                 | The service provider of the access point.                  |
| └Location         | String  | aplocation                           | The location of the access point.                          |
| └Name             | String  | Beijing-Fengtai-A                    | The name of the access point.                              |
| └Status           | String  | recommended                          | The status of the access point.                            |
| └Type             | String  | VPC                                  | The network type of the access of the physical connection. |
| TotalCount        | Integer | 5                                    | The number of queried entries.                             |
| PageNumber        | Integer | 1                                    | The current page number.                                   |
| PageSize          | Integer | 10                                   | The number of entries per page.                            |
| RequestId         | String  | 3E85D803-C7CF-4BCD-9CFE-6DBA1DFFA027 | The ID of the request.                                     |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?RegionId=cn-hangzhou
```

&< CommonParameters >

## Response example

### XML format

```
< DescribeAccessPoints Response >
  < AccessPointSet >
    < AccessPointType >
      < Name > Beijing - Fengtai - A </ Name >
      < Status > recommended </ Status >
      < Description > cn - beijing - ft - cxp32 </ Description >
      < Type > VPC </ Type >
      < Location />
      < HostOperator > xxx </ HostOperator >
      < AttachedRegionNo > cn - beijing </ AttachedRegionNo >
      < AccessPointId > ap - cn - beijing - ft - A </ AccessPointId >
    </ AccessPointType >
    < AccessPointType >
      < Name > Beijing - Yizhuang - A </ Name >
      < Status > recommended </ Status >
      < Description > cn - beijing - yz - ne203 </ Description >
      < Type > VPC </ Type >
      < Location />
      < HostOperator > xxx </ HostOperator >
      < AttachedRegionNo > cn - beijing </ AttachedRegionNo >
      < AccessPointId > ap - cn - beijing - yz - A </ AccessPointId >
    </ AccessPointType >
    < AccessPointType >
      < Name > Beijing - Daxing - B </ Name >
      < Status > recommended </ Status >
      < Description > cn - beijing - dx - nu16 </ Description >
      < Type > VPC </ Type >
      < Location />
      < HostOperator > China Unicom </ HostOperator >
      < AttachedRegionNo > cn - beijing </ AttachedRegionNo >
      < AccessPointId > ap - cn - beijing - dx - B </ AccessPointId >
    </ AccessPointType >
    < AccessPointType >
      < Name > Beijing - Changping - A </ Name >
      < Status > recommended </ Status >
      < Description > ap - cn - beijing - cp - CM12 </ Description >
    >
      < Type > VPC </ Type >
      < Location />
      < HostOperator > China Telecom </ HostOperator >
      < AttachedRegionNo > cn - beijing </ AttachedRegionNo >
      < AccessPointId > ap - cn - beijing - cp - A </ AccessPointId >
    </ AccessPointType >
    < AccessPointType >
      < Name > Beijing - Daxing - A </ Name >
      < Status > recommended </ Status >
      < Description > cn - beijing - dx - nu17 - a </ Description >
    >
      < Type > VPC </ Type >
      < Location />
      < HostOperator > GDS </ HostOperator >
      < AttachedRegionNo > cn - beijing </ AttachedRegionNo >
```

```

    < AccessPoin tId > ap - cn - beijing - dx - A </ AccessPoin
tId >
  </ AccessPoin tType >
</ AccessPoin tSet >
< PageNumber > 1 </ PageNumber >
< TotalCount > 5 </ TotalCount >
< PageSize > 10 </ PageSize >
< RequestId > 3E85D803 - C7CF - 4BCD - 9CFE - 6DBA1DFFA0 27 </
RequestId >
</ DescribeAc cessPoints Response >

```

## JSON format

```

{
  " PageNumber ": 1 ,
  " AccessPoin tSet ": {
    " AccessPoin tType ": [
      {
        " Name ": " Beijing - Fengtai - A ",
        " Status ": " recommende d ",
        " Descriptio n ": " cn - beijing - ft - cxp32 ",
        " Type ": " VPC ",
        " Location ": "",
        " HostOperat or ": " CNIX ",
        " AttachedRe gionNo ": " cn - beijing ",
        " AccessPoin tId ": " ap - cn - beijing - ft - A "
      },
      {
        " Name ": " Beijing - Yizhuang - A ",
        " Status ": " recommende d ",
        " Descriptio n ": " cn - beijing - yz - ne203 ",
        " Type ": " VPC ",
        " Location ": "",
        " HostOperat or ": " 21vianet ",
        " AttachedRe gionNo ": " cn - beijing ",
        " AccessPoin tId ": " ap - cn - beijing - yz - A "
      },
      {
        " Name ": " Beijing - Daxing - B ",
        " Status ": " recommende d ",
        " Descriptio n ": " cn - beijing - dx - nu16 ",
        " Type ": " VPC ",
        " Location ": "",
        " HostOperat or ": " China Unicom ",
        " AttachedRe gionNo ": " cn - beijing ",
        " AccessPoin tId ": " ap - cn - beijing - dx - B "
      },
      {
        " Name ": " Beijing - Changping - A ",
        " Status ": " recommende d ",
        " Descriptio n ": " ap - cn - beijing - cp - CM12 ",
        " Type ": " VPC ",
        " Location ": "",
        " HostOperat or ": " China Telecom ",
        " AttachedRe gionNo ": " cn - beijing ",
        " AccessPoin tId ": " ap - cn - beijing - cp - A "
      },
      {
        " Name ": " Beijing - Daxing - A ",
        " Status ": " recommende d ",
        " Descriptio n ": " cn - beijing - dx - nu17 - a ",
        " Type ": " VPC ",
        " Location ": "",

```

```
    " HostOperat or ":" GDS ",
    " AttachedRe gionNo ":" cn - beijing ",
    " AccessPoin tId ":" ap - cn - beijing - dx - A "
  }
]
},
" TotalCount ": 5 ,
" PageSize ": 10 ,
" RequestId ":" 3E85D803 - C7CF - 4BCD - 9CFE - 6DBA1DFFA0 27 "
```

## Error codes

| HTTP status code | Error code                     | Error message                                          | Description                         |
|------------------|--------------------------------|--------------------------------------------------------|-------------------------------------|
| 404              | InvalidRegionId.<br>NotSupport | The RegionId provided does not support in our records. | The specified region ID is invalid. |

[See common error codes](#)

## 17.3 DescribeRegions

Queries one or more regions.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter      | Type   | Required? | Example value   | Description                                                                                                                                             |
|----------------|--------|-----------|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action         | String | Yes       | DescribeRegions | The name of this action. Value : DescribeRegions                                                                                                        |
| AcceptLanguage | String | No        | zh-CN           | The language of the return value. Valid values: <ul style="list-style-type: none"><li>zh - CN ( default ) : Chinese</li><li>en - US : English</li></ul> |

| Parameter   | Type   | Required? | Example value | Description       |
|-------------|--------|-----------|---------------|-------------------|
| ProductType | String | No        | vpc           | The product type. |

### Response parameters

| Parameter      | Type   | Example value                        | Description                                 |
|----------------|--------|--------------------------------------|---------------------------------------------|
| Regions        |        |                                      | A list of regions.                          |
| LocalName      | String | China Qingdao                        | The name of the region.                     |
| RegionEndpoint | String | vpc.aliyuncs.com                     | The endpoint of the service in this region. |
| RegionId       | String | cn-qingdao                           | The ID of the region.                       |
| RequestId      | String | 611CB80C-B6A9-43DB-9E38-0B0AC3D9B58F | The ID of the request.                      |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?<CommonParameters>
```

#### Response example

#### XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
< DescribeRegionsResponse >
  < RequestId > 611CB80C-B6A9-43DB-9E38-0B0AC3D9B58F </
    RequestId >
  < Regions >
    < Region >
      < RegionId > cn-qingdao </ RegionId >
      < RegionEndpoint > vpc.aliyuncs.com </ RegionEndpoint >
      < LocalName > China North 1 </ LocalName >
    </ Region >
    < Region >
      < RegionId > eu-central-1 </ RegionId >
      < RegionEndpoint > vpc.eu-central-1.aliyuncs.com </
        RegionEndpoint >
      < LocalName > Germany (Frankfurt) </ LocalName >
    </ Region >
  </ Regions >
</ DescribeRegionsResponse >
```

```
</ DescribeRegionsResponse >
```

### JSON format

```
{
  "RequestId": "2F026E79-30AD-47B6-9E7D-D1D4BA77F1F1",
  "Regions": {
    "Region": [
      {
        "RegionId": "cn-qingdao",
        "RegionEndpoint": "vpc.aliyuncs.com",
        "LocalName": "China North 1"
      },
      {
        "RegionId": "eu-central-1",
        "RegionEndpoint": "vpc.eu-central-1.amazonaws.com",
        "LocalName": "Germany (Frankfurt)"
      }
    ]
  }
}
```

### Error codes

[See common error codes](#)

# 18 Physical connection

---

## 18.1 CreatePhysicalConnection

Create a physical connection.

After the physical connection changes to the Initial status, contact the service provider for construction.

Note the following before creating a physical connection:

- The number of physical connections that are not in the Enabled status cannot exceed five.
- If there is a delinquent physical connection in your account, you cannot apply for more physical connection.

Request parameters

| Name          | Type   | Required | Description                                                                                                                  |
|---------------|--------|----------|------------------------------------------------------------------------------------------------------------------------------|
| Action        | String | Yes      | The action to perform. Valid value: CreatePhysicalConnection                                                                 |
| RegionId      | String | Yes      | The region of the physical connection. You can obtain the region ID by calling the DescribeRegions API.                      |
| AccessPointId | String | Yes      | The ID of the access point used by the physical connection. You can obtain the region ID by calling the DescribeRegions API. |
| CircuitCode   | String | No       | The circuit code provided by the service provider for the physical connection.                                               |

| Name                          | Type   | Required | Description                                                                                                                                                                                                                                                                                                                                                                    |
|-------------------------------|--------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LineOperator                  | String | Yes      | The service provider that provides the physical connection. Valid value: <ul style="list-style-type: none"> <li>CT : China Telecom</li> <li>CU : China Unicom</li> <li>CM : China Mobile</li> <li>CO : Others in China</li> <li>Equinix : Equinix</li> <li>Other : Others outside China</li> </ul>                                                                             |
| PeerLocation                  | String | Yes      | The geographic location of the local data center.                                                                                                                                                                                                                                                                                                                              |
| BandWidth                     | String | No       | The bandwidth in Mbps of the physical connection. The default value is 100 and the valid value is [2, 10240].                                                                                                                                                                                                                                                                  |
| PortType                      | String | No       | The port type of the physical connection. Valid value: <ul style="list-style-type: none"> <li>100Base - T : 100-MB electrical port</li> <li>1000Base - T (default): 1-GB electrical port</li> <li>1000Base - LX : 1-GB single-mode optical port (10 km)</li> <li>10GBase - T : 10-GB electrical port</li> <li>10GBase - LR : 10-GB single-mode optical port (10 km)</li> </ul> |
| RedundantPhysicalConnectionId | String | No       | The ID of the redundant physical connection. The redundant physical connection must be in the Allocated, Confirmed, or Enabled status.                                                                                                                                                                                                                                         |
| Name                          | String | No       | The name of the physical connection. The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, dots, underscores, and hyphens. The name must start with an English letter, but cannot start with <code>http://</code> or <code>https://</code> .                                                                                                                  |

| Name        | Type   | Required | Description                                                                                                                                                                                                       |
|-------------|--------|----------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description | String | No       | The description of the physical connection. The description can contain 2-256 characters. It must start with English letters, but cannot start with <code>http://</code> or <code>https://</code> .               |
| ClientToken | String | No       | A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and is guaranteed to be unique among different requests. The maximum length is 64 ASCII characters. |

### Response parameters

| Name                 | Type   | Description            |
|----------------------|--------|------------------------|
| RequestId            | String | The ID of the request. |
| PhysicalConnectionId | String | The ID of the VPC.     |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=CreatePhysicalConnection
&RegionId=cn-beijing
&AccessPointId=ap-cn-beijing-ft-A
&LineOperator=CT
&PeerLocation=XXX
&CommonParameters
```

#### Response example

##### • XML format

```
<?xml version="1.0" encoding="UTF-8"?>
<CreatePhysicalConnectionResponse>
  <RequestId>8A6A5EC5-6F6C-4906-9689-56ACE58A13 E0</RequestId>
  <PhysicalConnectionId>pc-*****</PhysicalConnectionId>
</CreatePhysicalConnectionResponse>
```

##### • JSON format

```
{
  "PhysicalConnectionId": "pc-*****",
  "RequestId": "8A6A5EC5-6F6C-4906-9689-56ACE58A13 E0"
```

```
}
```

## 18.2 CancelPhysicalConnection

Cancels physical connection access. After the cancelling, the physical connection changes to the Canceled state.

You cannot cancel a physical connection that is in the Enabled state.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter            | Type   | Required? | Example value                       | Description                                                                                                                                                                         |
|----------------------|--------|-----------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action               | String | Yes       | CancelPhysicalConnection            | The name of this action. Value: CancelPhysicalConnection                                                                                                                            |
| PhysicalConnectionId | String | Yes       | pc-119mfjzm7                        | The ID of the physical connection.                                                                                                                                                  |
| RegionId             | String | Yes       | cn-shanghai                         | The region where the physical connection is located.<br>To query the region ID, call DescribeRegions.                                                                               |
| ClientToken          | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length. |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 4EC47282-1B74-4534-BD0E-403F3EE64CAF | The ID of the request. |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=CancelPhysicalConnection
&PhysicalConnectionId=pc-119mfjzm7
&RegionId=cn-shanghai
&<CommonParameters>
```

### Response example

#### XML format

```
<RequestId>BE36E95A-F83E-4127-A29E-F2F35D4C999A</RequestId>
```

#### JSON format

```
{
  "RequestId": "BE36E95A-F83E-4127-A29E-F2F35D4C999A"
}
```

## Error codes

| HTTP status code | Error code                           | Error message                                                    | Description                                                                                     |
|------------------|--------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| 404              | InvalidPhysicalConnectionId.NotFound | The PhysicalConnectionId provided does not exist in our records. | The specified physical connection does not exist.                                               |
| 400              | Forbidden.NotAllowedInState          | The request does not allow in this state.                        | The request cannot be processed because the status of the resource does not permit this action. |

[See common error codes](#)

## 18.3 DescribePhysicalConnections

Query physical connections in a region.

## Debug

Perform a [debug](#) in OpenAPI Explorer. We recommend that you use OpenAPI Explorer. By using OpenAPI Explorer, you can call APIs, generate SDK code examples automatically, and search APIs, allowing you to quickly and easily get started with using APIs on the cloud.

## Request parameters

| Parameter   | Type   | Required? | Example value               | Description                                                                                                                                                                                  |
|-------------|--------|-----------|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action      | String | Yes       | DescribePhysicalConnections | The action to perform.<br>Valid value: DescribePhysicalConnections                                                                                                                           |
| RegionId    | String | Yes       | cn-hangzhou                 | The ID of the region where the leased line is deployed.<br>You can obtain the region ID by calling the <a href="#">DescribeRegions</a> API.                                                  |
| ClientToken | String | No        | 23243242rggyt               | Optional. It is used to guarantee the idempotence of requests. This parameter is generated by clients. It must be unique for each request and must not exceed 64 ASCII characters in length. |

| Parameter                 | Type       | Required<br>? | Example value | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|---------------------------|------------|---------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Filter . N<br>. Key       | String     | No            | 1             | <p>Optional. The filter conditions . Value range of N: 1 to 5. Supported filter conditions include:</p> <ul style="list-style-type: none"> <li>PhysicalConnectionId : the ID of the physical connection</li> <li>AccessPointId: the ID of the access point</li> <li>Type: the type of the physical connection</li> <li>LineOperator: the service provider of the leased line</li> <li>Spec: the specification of the physical connection</li> <li>Status: the status of the physical connection</li> <li>Name: the name of the physical connection</li> </ul> <p>The relationship of multiple filter condition values is OR, which means that this filter condition is met when at least one of the specified value is returned. The relationship of multiple filter conditions is AND, which means a physical connection is displayed in the query result only when it meets all the specified conditions.</p> |
| Filter . N<br>. Value . N | RepeatList | No            | 1             | Optional. Values of filter conditions. Value range of N: 1 to 5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| IncludeReservationData    | Boolean    | No            | false         | Optional. Indicates whether to return invalid orders.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |

| Parameter  | Type    | Required ? | Example value | Description                                                                  |
|------------|---------|------------|---------------|------------------------------------------------------------------------------|
| PageNumber | Integer | No         | 10            | Optional. The page number of the physical connection list. Default value: 1. |
| PageSize   | Integer | No         | 1             | Optional. The number of rows per page. Maximum value: 50. Default value: 10. |

## Response parameters

| Parameter             | Type   | Example value                                            | Description                                                                                                                                                                                                                           |
|-----------------------|--------|----------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PhysicalConnectionSet |        |                                                          | Details of physical connections                                                                                                                                                                                                       |
| └AccessPointId        | String | eip-2zeerraiwb7uj6i0d0fo3                                | The access point ID of the physical connection                                                                                                                                                                                        |
| └AdLocation           | String | Room Ax-x, Building B, No. x of xxx Avenue, New York, US | The location where the leased line is connected                                                                                                                                                                                       |
| └Bandwidth            | Long   | 10                                                       | The bandwidth of the physical connection                                                                                                                                                                                              |
| └BusinessStatus       | String | Normal                                                   | The payment status of the physical connection. Valid values: <ul style="list-style-type: none"> <li>Normal</li> <li>FinancialLocked: locked due to overdue payment</li> <li>SecurityLocked: locked due to security reasons</li> </ul> |
| └ChargeType           | String | Prepaid                                                  | The billing method of the physical connection                                                                                                                                                                                         |
| └CircuitCode          | String | longtel001                                               | The number of the leased line from the service provider                                                                                                                                                                               |
| └CreationTime         | String | 2017-06-08T12:20:55                                      | The time when the physical connection is established                                                                                                                                                                                  |
| └Description          | String | Physical connection                                      | A description about the physical connection                                                                                                                                                                                           |

| Parameter                         | Type   | Example value         | Description                                                                                                                                                                                                                                                                                                                                                     |
|-----------------------------------|--------|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>EnabledTime</code>          | String | 2017-06-08T12:20:55   | The time when the physical connection is enabled                                                                                                                                                                                                                                                                                                                |
| <code>EndTime</code>              | String | 2019-02-25T11:01:04Z  | The time when the physical connection expires                                                                                                                                                                                                                                                                                                                   |
| <code>HasReservationData</code>   | String | true                  | Indicates whether subscription messages are received                                                                                                                                                                                                                                                                                                            |
| <code>LineOperator</code>         | String | CT                    | The service provider that provides the leased line. Valid values: <ul style="list-style-type: none"> <li>CT: China Telecom</li> <li>CU: China Unicom</li> <li>CM: China Mobile</li> <li>CO: Other Chinese service providers</li> <li>Equinix: Equinix</li> <li>Other: Other service providers outside Mainland China</li> </ul>                                 |
| <code>LoaStatus</code>            | String | Available             | The status of the LOA                                                                                                                                                                                                                                                                                                                                           |
| <code>Name</code>                 | String | name                  | The name of the physical connection                                                                                                                                                                                                                                                                                                                             |
| <code>PeerLocation</code>         | String | Zhejiang---vfjdbg_21e | The location of the on-premises IDC                                                                                                                                                                                                                                                                                                                             |
| <code>PhysicalConnectionId</code> | String | pc-119mfjzm7          | The ID of the physical connection                                                                                                                                                                                                                                                                                                                               |
| <code>PortNumber</code>           | String | 80                    | The port number of the physical connection device                                                                                                                                                                                                                                                                                                               |
| <code>PortType</code>             | String | 1000Base-T            | The type of physical connection ports: <ul style="list-style-type: none"> <li>100Base-T: 100M electrical ports</li> <li>1000Base-T (default value): Gigabit electrical ports</li> <li>1000Base-LX: Gigabit single-mode optical ports (10 km)</li> <li>10GBase-T: 10-GE electrical ports</li> <li>10GBase-LR: 10-GE single-mode optical ports (10 km)</li> </ul> |

| Parameter                                  | Type   | Example value        | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------|--------|----------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <code>RedundantPhysicalConnectionId</code> | String | pc-119mfjzm7         | The ID of the redundant physical connection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <code>ReservationActiveTime</code>         | String | 2019-02-25T11:01:04Z | The effective time of a renewal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <code>ReservationInternetChargeType</code> | String | PayByBandwidth       | The type of renewal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <code>ReservationOrderType</code>          | String | RENEW                | The type of the renewal order                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <code>Spec</code>                          | String | Large                | The specification of the physical connection                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <code>Status</code>                        | String | Initial              | <p>The status of the physical connection. Valid values:</p> <ul style="list-style-type: none"> <li>Initial: The physical connection has been applied for and is under review by Alibaba Cloud.</li> <li>Approved: The application is approved.</li> <li>Allocating: Resources are being allocated.</li> <li>Allocated: The leased line is being installed.</li> <li>Confirmed: The completed leased line installation needs to be confirmed by the customer.</li> <li>Enabled: The physical connection interface is enabled.</li> <li>Rejected: The application is rejected.</li> <li>Canceled: The application is canceled.</li> <li>Allocation Failed: Failed to allocate resources.</li> <li>Terminated: The physical connection is terminated.</li> </ul> |
| <code>Type</code>                          | String | VPC                  | The type of the physical connection. Default value: VPC.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

| Parameter  | Type    | Example value                        | Description                   |
|------------|---------|--------------------------------------|-------------------------------|
| TotalCount | Integer | 10                                   | The number of items in a list |
| PageNumber | Integer | 10                                   | The current page number       |
| PageSize   | Integer | 10                                   | The number of items per page  |
| RequestId  | String  | EEC8EAB1-F299-4F5C-8E54-0A3129164C27 | The ID of the request         |

## Example

### Request example

```
https://vpc.aliyuncs.com/?Action=DescribePhysicalConnections
&RegionId=cn-hangzhou
&<CommonParameters>
```

### Response examples

#### XML format

```
<DescribePhysicalConnectionsResponse>
  <PageNumber>1</PageNumber>
  <TotalCount>1</TotalCount>
  <PageSize>10</PageSize>
  <RequestId>7C07B0AF-4FC0-4BB2-9667-F75812824BCD</RequestId>
  <PhysicalConnectionSet>
    <PhysicalConnectionType>
      <Type>VPC</Type>
      <PhysicalConnectionId>pc-2zeoaxkq3jot5p71qcnuy</PhysicalConnectionId>
      <PeerLocation>XXX-XXRoad--XXXDistrict</PeerLocation>
      <CreateTime>2017-12-13T02:28:42Z</CreateTime>
      <Name>TEST</Name>
      <Status>Enabled</Status>
      <AdLocation>CabinetXXUDataCenterXXX--XXX--XX--XXX</AdLocation>
      <EnabledTime>2017-12-18T04:01:30Z</EnabledTime>
    >
    <BusinessStatus>Normal</BusinessStatus>
    <LineOperator>CT</LineOperator>
    <PortNumber>1/1/4</PortNumber>
    <AccessPointId>ap-cn-beijing-dx-A</AccessPointId>
    <PortType>100Base-T</PortType>
    <Bandwidth>2</Bandwidth>
  </PhysicalConnectionType>
</PhysicalConnectionSet>
```

```
</ DescribePhysicalConnectionsResponse >
```

### JSON format

```
{
  "PageNumber": 1,
  "TotalCount": 1,
  "PageSize": 10,
  "RequestId": "7C07B0AF-4FC0-4BB2-9667-F75812824B-CD",
  "PhysicalConnectionSet": {
    "PhysicalConnectionType": [
      {
        "Type": "VPC",
        "PhysicalConnectionId": "pc-2zeoaxkq3j-ot5p71qcnu-y",
        "PeerLocation": "XXXRoad-XXDistrict--XXX",
        "CreationTime": "2017-12-13T02:28:42Z",
        "Name": "TEST",
        "Status": "Enabled",
        "AdLocation": "CabinetXXU-DataCenter-XX--XXX-XX--XXX",
        "EnabledTime": "2017-12-18T04:01:30Z",
        "BusinessStatus": "Normal",
        "LineOperator": "CT",
        "PortNumber": "1/1/4",
        "AccessPointId": "ap-cn-beijing-dx-A",
        "PortType": "100Base-T",
        "Bandwidth": 2
      }
    ]
  }
}
```

### Error codes

| HttpCode | Error code                             | Error message                                       | Description                                               |
|----------|----------------------------------------|-----------------------------------------------------|-----------------------------------------------------------|
| 404      | InvalidFilterKey<br>.ValueNotSupported | Specified filter key is not supported: Filter.X.key | The specified filter key, Filter.X.key, is not supported. |

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

## 18.4 ModifyPhysicalConnectionAttribute

Modifies the attributes of a physical connection.

Note the following before you call this action:

- If you want to modify the specification or the redundant physical connection ID, the corresponding physical connection must be in the Initial or Rejected status.
- You cannot modify the attributes of a physical connection that is in the Canceled, Allocating, AllocationFailed, or Terminated status.

- After modification, a physical connection in the Rejected status will change to the Initial status.

## Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter            | Type   | Required? | Example value                              | Description                                                                                                                                                                                              |
|----------------------|--------|-----------|--------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action               | String | Yes       | ModifyPhysicalConnectionAttribute          | The name of this action. Value: ModifyPhysicalConnectionAttribute                                                                                                                                        |
| PhysicalConnectionId | String | Yes       | pc-119mfjzm7                               | The ID of the physical connection.                                                                                                                                                                       |
| RegionId             | String | Yes       | cn-shanghai                                | The region where the physical connection is located.<br>To query the region ID, call DescribeRegions.                                                                                                    |
| CircuitCode          | String | No        | longtel001                                 | The circuit code provided by the carrier for the physical connection.                                                                                                                                    |
| ClientToken          | String | No        | efefe566754h                               | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length.                      |
| Description          | String | No        | The description of the physical connection | The description of the physical connection.<br>The description must be 2 to 256 characters in length. It must start with a letter, but cannot start with <code>http://</code> or <code>https://</code> . |

| Parameter    | Type   | Required? | Example value                       | Description                                                                                                                                                                                                                                                                                       |
|--------------|--------|-----------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LineOperator | String | No        | CT                                  | <p>The carrier that provides the physical connection. Valid values:</p> <ul style="list-style-type: none"> <li>CT : China Telecom</li> <li>CU : China Unicom</li> <li>CM : China Mobile</li> <li>CO : Others in China</li> <li>Equinix : Equinix</li> <li>Other : Others outside China</li> </ul> |
| Name         | String | No        | The name of the physical connection | <p>The name of the physical connection.</p> <p>The name must be 2 to 128 characters in length and can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter. It cannot start with <code>http://</code> or <code>https://</code>.</p>         |
| PeerLocation | String | No        | Zhejiang Province---vfjdbg_21e      | The geographic location of the on-premises data center.                                                                                                                                                                                                                                           |

| Parameter                     | Type   | Required? | Example value | Description                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------------------|--------|-----------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PortType                      | String | No        | E1 - 2M       | <p>The port type of the physical connection. Valid values:</p> <ul style="list-style-type: none"> <li>100Base - T : 100 Mbps electrical port</li> <li>1000Base - T (default): 1 Gbps electrical port</li> <li>1000Base - LX : 1 Gbps single-mode optical port (10 km)</li> <li>10GBase - T : 10 Gbps electrical port</li> <li>10GBase - LR : 10 Gbps single-mode optical port (10 km)</li> </ul> |
| RedundantPhysicalConnectionId | String | No        | pc-119mfjzm7  | The ID of the redundant physical connection. The redundant physical connection must be in the Allocated, Confirmed, or Enabled status.                                                                                                                                                                                                                                                           |
| Bandwidth                     | String | No        | 5             | The bandwidth in Mbps of the physical connection. Value range: 2 to 10240.                                                                                                                                                                                                                                                                                                                       |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 013EE132-A109-4247-91B0-099A8FF49AD7 | The ID of the request. |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=ModifyPhysicalConnectionAttribute
```

```
& PhysicalConnectionId = pc - 119mfjzm7
& RegionId = cn - shanghai
&< CommonParameters >
```

### Response example

#### • XML format

```
< ModifyPhysicalConnectionAttributeResponse >
  < RequestId > 8A6A5EC5 - 6F6C - 4906 - 9689 - 56ACE58A13 E0 "</
  RequestId >
</ ModifyPhysicalConnectionAttributeResponse >
```

#### • JSON format

```
{
  "RequestId ":" 8A6A5EC5 - 6F6C - 4906 - 9689 - 56ACE58A13 E0 "
}
```

### Error codes

| HTTP status code | Error code                               | Error message                                                    | Description                                                                                                                                       |
|------------------|------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 404              | InvalidPhysicalConnectionId.<br>NotFound | The PhysicalConnectionId provided does not exist in our records. | The specified physical connection does not exist.                                                                                                 |
| 400              | InvalidPeerLocation.<br>Malformed        | The PeerLocation provided was invalid.                           | The value of the PeerLocation parameter is invalid.                                                                                               |
| 400              | InvalidPortType.<br>Malformed            | The PortType provided was invalid.                               | The specified port type is invalid.                                                                                                               |
| 400              | InvalidDescription.<br>Malformed         | The specified ?Description? is not valid.                        | The format of the description is invalid. The source description can be 2 to 256 characters in length. It cannot start with http:// and https://. |
| 400              | InvalidName.<br>Malformed                | The specified ?Name? is not valid.                               | The name format is invalid.                                                                                                                       |
| 400              | InvalidStatus                            | invalid physical connection status.                              | The specified physical connection status is invalid.                                                                                              |

| HTTP status code | Error code                               | Error message                                                 | Description                                                                  |
|------------------|------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------|
| 400              | InvalidBandwidth                         | invalid physical connection bandwidth.                        | The specified physical connection bandwidth is invalid.                      |
| 400              | InvalidRedundantPhysicalConnection       | redundant physical connection doesn't belong to current user. | The specified redundant physical connection does not belong to your account. |
| 400              | InvalidRedundantPhysicalConnectionStatus | invalid redundant physical connection status .                | The status of the redundant physical connection is invalid.                  |
| 400              | InvalidCircuitCode.<br>Malformed         | circuitCode is illegal.                                       | The specified circuit code is invalid.                                       |

[See common error codes](#)

## 18.5 TerminatePhysicalConnection

Terminate the access of the physical connection after the physical connection is enabled. The physical connection changes to the Terminating status after the API is called and changes to the Terminated status when the process is completed.

Note the following before terminating a physical connection:

- You can only terminate a physical connection in the Enabled status.
- Before terminating a physical connection, you must delete the Virtual Border Routers (VBRs) associated with the physical connection.

Request parameters

| Name     | Type   | Required | Description                                                                                             |
|----------|--------|----------|---------------------------------------------------------------------------------------------------------|
| Action   | String | Yes      | The action to perform. Valid value: TerminatePhysicalConnection                                         |
| RegionId | String | Yes      | The region of the physical connection. You can obtain the region ID by calling the DescribeRegions API. |

| Name                 | Type   | Required | Description                        |
|----------------------|--------|----------|------------------------------------|
| PhysicalConnectionId | String | Yes      | The ID of the physical connection. |

#### Response parameters

| Name      | Type   | Description            |
|-----------|--------|------------------------|
| RequestId | String | The ID of the request. |

#### Examples

##### Request example

```
https://vpc.aliyuncs.com/?Action=TerminatePhysicalConnection
&PhysicalConnectionId=pc-2zeoaxkq3xxxxx
&RegionId=cn-beijing
&CommonParameters
```

##### Response example

##### XML format

```
<?xml version="1.0" encoding="UTF-8"?>
  <RequestId>513E0A50-4F2D-4CBE-BF35-40559DF65D79</RequestId>
```

## 18.6 EnablePhysicalConnection

Enables a physical connection in the Confirmed status. After being enabled, the physical connection changes to the Enabled status.

Note the following before you call this action:

- You can only enable a physical connection in the Confirmed status.
- The physical connection changes to the Enabled status after being enabled.

#### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter            | Type   | Required? | Example value                       | Description                                                                                                                                                                         |
|----------------------|--------|-----------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action               | String | Yes       | EnablePhysicalConnection            | The name of this action. Value: EnablePhysicalConnection                                                                                                                            |
| PhysicalConnectionId | String | Yes       | pc-119mfjzm7                        | The ID of the physical connection.                                                                                                                                                  |
| RegionId             | String | Yes       | cn-shanghai                         | The region where the physical connection is located.<br>To query the region ID, call DescribeRegions.                                                                               |
| ClientToken          | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length. |

## Response parameters

| Parameter | Type   | Example value                            | Description            |
|-----------|--------|------------------------------------------|------------------------|
| RequestId | String | API-20365164-5b0d-460a-83c2-2189972b3349 | The ID of the request. |

## Examples

## Request example

```
https://vpc.aliyuncs.com/?Action=EnablePhysicalConnection
&PhysicalConnectionId=pc-119mfjzm7
&RegionId=cn-shanghai
&<CommonParameters>
```

## Response example

## • XML format

```
<EnablePhysicalConnectionResponse>
```

```
< RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 </
RequestId >
</ EnablePhysicalConnectionResponse >
```

- JSON format

```
{
  "RequestId ":" 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 "
}
```

#### Error codes

| HTTP status code | Error code                           | Error message                                                    | Description                                                                                     |
|------------------|--------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| 404              | InvalidPhysicalConnectionId.NotFound | The PhysicalConnectionId provided does not exist in our records. | The specified physical connection does not exist.                                               |
| 400              | Forbidden.NotAllowedInState          | The request does not allow in this state.                        | The request cannot be processed because the status of the resource does not permit this action. |

[See common error codes](#)

## 18.7 DeletePhysicalConnection

Deletes a physical connection.

You can only delete a physical connection in the Rejected, Canceled, AllocationFailed, or Terminated status.

#### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

#### Request parameters

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

| Parameter            | Type   | Required? | Example value | Description                                                                                           |
|----------------------|--------|-----------|---------------|-------------------------------------------------------------------------------------------------------|
| RegionId             | String | Yes       | pc-119mfjzm7  | The region where the physical connection is located.<br>To query the region ID, call DescribeRegions. |
| PhysicalConnectionId | String | Yes       | cn-shanghai   | The ID of the physical connection.                                                                    |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 2B3670CD-670E-4540-8C13-6DE929AEDD3B | The ID of the request. |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=DeletePhysicalConnection
&PhysicalConnectionId=pc-119mfjzm7
&RegionId=cn-shanghai
&<CommonParameters>
```

#### Response example

- XML format

```
<DeletePhysicalConnectionResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCA C0</RequestId>
</DeletePhysicalConnectionResponse>
```

- JSON format

```
{
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCA C0"
```

```
}
```

## Error codes

| HTTP status code | Error code                             | Error message                                                    | Description                                                                                     |
|------------------|----------------------------------------|------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| 404              | InvalidPhysicalConnectionId.NotFound   | The PhysicalConnectionId provided does not exist in our records. | The specified physical connection does not exist.                                               |
| 400              | Forbidden.NotAllowedInState            | The request does not allow in this state.                        | The request cannot be processed because the status of the resource does not permit this action. |
| 400              | InvalidPhysicalConnectionId.NotMatched | instance id not matched.                                         | The instance IDs do not match.                                                                  |
| 400              | Forbidden.VBRExists                    | vbr owner's vbr still exists .                                   | A VBR still exists.                                                                             |
| 400              | Forbidden.AssociateToVBR               | The physical connection still associate to VBR.                  | The physical connection is already associated with a VBR.                                       |

[See common error codes](#)

## 18.8 ApplyPhysicalConnectionLOA

Apply for the LOA.

### Debug

Perform a [debug](#) in OpenAPI Explorer. We recommend that you use OpenAPI Explorer. By using OpenAPI Explorer, you can call APIs, generate SDK code examples automatically, and search APIs, allowing you to quickly and easily get started with using APIs on the cloud.

## Request parameters

| Parameter                | Type    | Required? | Example value                       | Description                                                                                                       |
|--------------------------|---------|-----------|-------------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Action                   | String  | Yes       | ApplyPhysicalConnectionLOA          | The action to perform.<br>Valid value: ApplyPhysicalConnectionLOA.                                                |
| CompanyName              | String  | Yes       | company                             | The name of the company that requires the physical connection.                                                    |
| ConstructionTime         | String  | Yes       | 2019-02-28T16:00:00.000Z            | The date and time when the data cable installation technician or representative will go to the installation site. |
| InstanceId               | String  | Yes       | pc-bp1qrb3044eqixxxxxxx             | The instance ID of the physical connection interface.                                                             |
| LineType                 | String  | Yes       | SDH                                 | The type of leased line.                                                                                          |
| PeerLocation             | String  | Yes       | Hangzhou                            | The location where the leased line is deployed.                                                                   |
| RegionId                 | String  | Yes       | cn-hangzhou                         | The ID of the region to which the physical connection interface belongs.                                          |
| Si                       | String  | Yes       | Alibaba Cloud                       | The name of the installation company.                                                                             |
| Bandwidth                | Integer | No        | 3                                   | Optional. The bandwidth value of the physical connection.                                                         |
| ClientToken              | String  | No        | A47BD386-7FDE-4xxx4-8D22-C62xxxxxxx | Optional. The token used for client authentication.                                                               |
| LineOperator             | String  | No        | CU                                  | Optional. The service provider that provides the leased line.                                                     |
| PMInfo.N.PMCertificateNo | String  | No        | 3210xxxxxx<br>xxxxxxx               | Optional. The license number of the certificate held by the data cable installation technician or representative. |

| Parameter                      | Type   | Required ? | Example value | Description                                                                                                |
|--------------------------------|--------|------------|---------------|------------------------------------------------------------------------------------------------------------|
| PMInfo . N . PMCertificateType | String | No         | IDCard        | Optional. The type of the certificate that the data cable installation technician or representative holds. |
| PMInfo . N . PMContactInfo     | String | No         | 13200000000   | Optional. The contact information of the data cable installation technician or representative.             |
| PMInfo . N . PMGender          | String | No         | Male          | Optional. The gender of the data cable installation technician or representative.                          |
| PMInfo . N . PMName            | String | No         | Mike          | Optional. The name of the data cable installation technician or representative.                            |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | A47BD386-7FDE-42C4-8D22-C6223D18AA1C | The ID of the request. |

### Examples

#### Request example

```
http ( s ) : // [ Endpoint ] / ? CompanyName = company
& ConstructionTime = 2019 - 02 - 28T16 : 00 : 00 . 000Z
& InstanceId = pc - bp1qrb3044 eqixxxxxxx x
& LineType = SDH
& PeerLocation = Hangzhou
& RegionId = cn - hangzhou
& Si = Alibaba Cloud
& < CommonParameters >
```

#### Response examples

##### XML format

```
< ApplyPhysicalConnectionLOA >
< code > 200 </ code >
< httpStatusCode > 200 </ httpStatusCode >
< message > successful </ message >
```

```
< requestId > A47BD386 - 7FDE - 42C4 - 8D22 - C6223D18AA 1C </
requestId >
< success > true </ success >
</ ApplyPhysicalConnectionLOA >
```

#### JSON format

```
{
  "message ":" successful ",
  "httpStatus Code ": 200 ,
  "requestId ":" A47BD386 - 7FDE - 42C4 - 8D22 - C6223D18AA 1C ",
  "code ":" 200 ",
  "success ": true
}
```

#### Error codes

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

## 18.9 CompletePhysicalConnectionLOA

Report information about the completed installation of the leased line.

#### Debug

Perform a [debug](#) in OpenAPI Explorer. We recommend that you use OpenAPI Explorer. By using OpenAPI Explorer, you can call APIs, generate SDK code examples automatically, and search APIs, allowing you to quickly and easily get started with using APIs on the cloud.

#### Request parameters

| Parameter  | Type   | Required? | Example value                 | Description                                                           |
|------------|--------|-----------|-------------------------------|-----------------------------------------------------------------------|
| Action     | String | Yes       | CompletePhysicalConnectionLOA | The action to perform.<br>Valid value: CompletePhysicalConnectionLOA. |
| InstanceId | String | Yes       | pc-bp10tvlhnwkwxxxxxxxxxx     | The instance ID of the physical connection interface.                 |
| LineCode   | String | Yes       | aaa111                        | The number of the leased line.                                        |
| LineLabel  | String | Yes       | bbb222                        | The label numbers of cables at the installation site.                 |
| RegionId   | String | Yes       | cn-hangzhou                   | The ID of the region where the leased line is deployed.               |

| Parameter   | Type   | Required? | Example value                         | Description                                         |
|-------------|--------|-----------|---------------------------------------|-----------------------------------------------------|
| ClientToken | String | No        | F8983C74-E068-4509-B442-89xxxxxC8F43B | Optional. The token used for client authentication. |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | F8983C74-E068-4509-B442-89BD82C8F43B | The ID of the request. |

### Examples

#### Request example

```
http ( s )://[ Endpoint ]/? InstanceId = pc - bp10tvlhgw kwxxxxxxxxx
xx
& LineCode = aaa111
& LineLabel = bbb222
& RegionId = cn - hangzhou
&< CommonParameters >
```

#### Response examples

##### XML format

```
< CompletePhysicalConnectionLOA >
  < code > 200 </ code >
  < message > successful </ message >
  < requestId > 5FA3B04E - AEA0 - 4F89 - BF0D - 3FD71ED69B F7 </
requestId >
  < success > true </ success >
</ CompletePhysicalConnectionLOA >
```

##### JSON format

```
{
  " message ":" successful ",
  " requestId ":" 5FA3B04E - AEA0 - 4F89 - BF0D - 3FD71ED69B F7 ",
  " code ":" 200 ",
  " success ": true
}
```

### Error codes

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

## 18.10 CreatePhysicalConnectionOccupancyOrder

Create an order for the initial installation fee.

### Debug

Perform a [debug](#) in OpenAPI Explorer. We recommend that you use OpenAPI Explorer. By using OpenAPI Explorer, you can call APIs, generate SDK code examples automatically, and search APIs, allowing you to quickly and easily get started with using APIs on the cloud.

### Request parameters

| Parameter            | Type    | Required? | Example value                          | Description                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------|---------|-----------|----------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action               | String  | Yes       | CreatePhysicalConnectionOccupancyOrder | The action to perform. Valid value: CreatePhysicalConnectionOccupancyOrder.                                                                                                                                                                                                                                                                                                            |
| PhysicalConnectionId | String  | Yes       | pc-bp1hp0wr072f6ambni141               | The instance ID of the physical connection interface.                                                                                                                                                                                                                                                                                                                                  |
| RegionId             | String  | Yes       | cn-hangzhou                            | The ID of the region where the leased line is deployed.                                                                                                                                                                                                                                                                                                                                |
| AutoPay              | Boolean | No        | true                                   | Optional. Indicates whether to pay automatically. Valid values: <ul style="list-style-type: none"><li>· true (default value): Pay automatically. If you select this value, you must ensure that your account has enough available funds. Otherwise, the order that is generated is invalid.</li><li>· false: Generates the order only. No fee is deducted from your account.</li></ul> |
| ClientToken          | String  | No        | CBCE910E-D396-4944-8764-B4047838B2D1   | Optional. The token used for client authentication.                                                                                                                                                                                                                                                                                                                                    |

| Parameter          | Type    | Required? | Example value | Description                                                                                                                                                                                                                                                                      |
|--------------------|---------|-----------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| InstanceChargeType | String  | No        | PostPaid      | Optional. The billing method of the instance. Valid values: <ul style="list-style-type: none"> <li>PrePaid: Subscription. If you select this value, you must make sure that your account has enough available funds.</li> <li>PostPaid (default value): Pay-As-You-Go</li> </ul> |
| Period             | Integer | No        | 1             | Optional. The validity period of a Subscription.                                                                                                                                                                                                                                 |
| PricingCycle       | String  | No        | Month         | Optional. The Subscription cycle. Valid values: <ul style="list-style-type: none"> <li>Month</li> <li>Year</li> </ul>                                                                                                                                                            |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | CBCE910E-D396-4944-8764-B4047838B2D1 | The ID of the request. |

### Example

#### Request example

```
http ( s )://[ Endpoint ]/? PhysicalConnectionId = pc - bp1hp0wr07
2f6ambni14 1
& RegionId = cn - hangzhou
&< CommonParameters >
```

#### Response example

##### XML format

```
< CreatePhysicalConnectionOccupancyOrder >
  < code > 200 </ code >
  < data >
    < orderId > 2031673097 40138 </ orderId >
  </ data >
  < httpStatusCode > 200 </ httpStatusCode >
  < message > successful </ message >
```

```
< requestId > CBCE910E - D396 - 4944 - 8764 - B4047838B2 D1 </
requestId >
< success > true </ success >
</ CreatePhysicalConnectionOccupancyOrder >
```

#### JSON format

```
{
  "message ":" successful ",
  "httpStatus Code ": 200 ,
  "requestId ":" CBCE910E - D396 - 4944 - 8764 - B4047838B2 D1 ",
  "data ":{
    "orderId ": 2031673097 40138
  },
  "code ":" 200 ",
  "success ": true
}
```

#### Error codes

| HttpCode | Error code                               | Error message                                                    | Description                                                                                                |
|----------|------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| 404      | InvalidPhysicalConnectionId.<br>NotFound | The PhysicalConnectionId provided does not exist in our records. | The ID of the physical connection does not exist.                                                          |
| 400      | Forbidden.<br>NotAllowedInState          | The request does not allow in this state.                        | Your request cannot be executed because the status of the physical connection does not permit this action. |

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

## 18.11 CreatePhysicalConnectionSetupOrder

Create an order for the resource fee.

#### Debug

Perform a [debug](#) in OpenAPI Explorer. We recommend that you use OpenAPI Explorer. By using OpenAPI Explorer, you can call APIs, generate SDK code examples automatically, and search APIs, allowing you to quickly and easily get started with using APIs on the cloud.

## Request parameters

| Parameter     | Type    | Required? | Example value                        | Description                                                                                                                                                                                                                                                                                                                     |
|---------------|---------|-----------|--------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| AccessPointId | String  | Yes       | ap-cn-beijing-ft-A                   | The ID of the access point.                                                                                                                                                                                                                                                                                                     |
| Action        | String  | Yes       | CreatePhysicalConnectionSetupOrder   | The action to perform.<br>Valid value: CreatePhysicalConnectionSetupOrder.                                                                                                                                                                                                                                                      |
| LineOperator  | String  | Yes       | CT                                   | The service provider that provides the leased line. Valid values: <ul style="list-style-type: none"> <li>CT: China Telecom</li> <li>CU: China Unicom</li> <li>CM: China Mobile</li> <li>CO: Other Chinese service providers</li> <li>Equinix: Equinix</li> <li>Other: Other service providers outside Mainland China</li> </ul> |
| RegionId      | String  | Yes       | cn-shanghai                          | The ID of the region where the leased line is deployed. You can get the region ID by calling the DescribeRegions API.                                                                                                                                                                                                           |
| AutoPay       | Boolean | No        | true                                 | Optional. Indicates whether to pay the fee automatically.<br>Valid values: true   false.                                                                                                                                                                                                                                        |
| ClientToken   | String  | No        | 318BB676-0A2B-43A0-9AD8-F1D34E93750F | Optional. The token used for client authentication.                                                                                                                                                                                                                                                                             |

| Parameter                     | Type   | Required? | Example value            | Description                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------------------|--------|-----------|--------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PortType                      | String | No        | 100Base-T                | Optional. The type of the leased line connection port. Valid values: <ul style="list-style-type: none"> <li>100Base-T: 100M electrical ports</li> <li>1000Base-T (default value): Gigabit electrical ports</li> <li>1000Base-LX: 1000M single-mode optical ports (10 km)</li> <li>10GBase-T: 10GE electrical ports</li> <li>10GBase-LR: 10GE single-mode optical ports (10km)</li> </ul> |
| RedundantPhysicalConnectionId | String | No        | pc-bp10zsv5ntpxxxxxxxxxx | Optional. The ID of the redundant physical connection. Its status must be Allocated, Confirmed, or Enabled.                                                                                                                                                                                                                                                                              |
| Type                          | String | No        | VPC                      | Optional. The type of the physical connection.                                                                                                                                                                                                                                                                                                                                           |

### Response parameters

| Parameter | Type   | Example value   | Description          |
|-----------|--------|-----------------|----------------------|
| OrderId   | String | 202844382740728 | The ID of the order. |

### Example

#### Request example

```
http ( s ) : // [ Endpoint ] / ? AccessPointId = ap - cn - beijing - ft - A
& LineOperator = CT
& RegionId = cn - shanghai
& < CommonParameters >
```

#### Response example

XML format

```
< CreatePhysicalConnectionSetupOrder >
```

```
< code > 200 </ code >
< data >
  < orderId > 2032554009 60138 </ orderId >
</ data >
< httpStatus Code > 200 </ httpStatus Code >
< message > successful </ message >
< requestId > AA874147 - 4A58 - 41D4 - 95E2 - F2FFDAF417 A6 </
requestId >
< success > true </ success >
</ CreatePhysicalConnectionSetupOrder >
```

#### JSON format

```
{
  "message": "successful",
  "httpStatus Code": 200,
  "requestId": "AA874147 - 4A58 - 41D4 - 95E2 - F2FFDAF417 A6",
  "data": {
    "orderId": "2032554009 60138"
  },
  "code": "200",
  "success": true
}
```

#### Error codes

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

## 18.12 DescribePhysicalConnectionLOA

Query LOA information about the physical connection.

#### Debug

Perform a [debug](#) in OpenAPI Explorer. We recommend that you use OpenAPI Explorer. By using OpenAPI Explorer, you can call APIs, generate SDK code examples automatically, and search APIs, allowing you to quickly and easily get started with using APIs on the cloud.

#### Request parameters

| Parameter  | Type   | Required? | Example value           | Description                                             |
|------------|--------|-----------|-------------------------|---------------------------------------------------------|
| InstanceId | String | Yes       | pc-bp1ca4wca27xxxxxxxxx | The instance ID of the physical connection interface.   |
| RegionId   | String | Yes       | cn-hangzhou             | The ID of the region where the leased line is deployed. |

| Parameter   | Type   | Required? | Example value                        | Description                                         |
|-------------|--------|-----------|--------------------------------------|-----------------------------------------------------|
| ClientToken | String | No        | 318BB676-0A2B-43A0-9AD8-F1D34E93750F | Optional. The token used for client authentication. |

## Response parameters

| Parameter                 | Type   | Example value           | Description                                                                                                                                                                           |
|---------------------------|--------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PhysicalConnectionLOAType |        |                         | The LOA information of the physical connection.                                                                                                                                       |
| └ CompanyLocalizedName    | String | company                 | The company name that you set when you registered your account.                                                                                                                       |
| └ CompanyName             | String | test1234                | The name of the company that requires the leased line.                                                                                                                                |
| └ ConstructionTime        | String | 2019-02-26T08:00:00Z    | The time when the the data center cable installation technician or representative will go to the installation site.                                                                   |
| └ InstanceId              | String | pc-bp1ca4wca27xxxxxxxxx | The instance ID of the physical connection interface.                                                                                                                                 |
| └ LineCode                | String | aaa111                  | The number of leased line.                                                                                                                                                            |
| └ LineLabel               | String | bbb222                  | The label numbers of the cables at the installation site.                                                                                                                             |
| └ LineType                | String | MSTP                    | The type of the physical connection.<br>Valid values:<br><ul style="list-style-type: none"> <li>• MSTP</li> <li>• Other</li> <li>• SDH</li> <li>• MPLSVPN</li> <li>• FIBRE</li> </ul> |

| Parameter                 | Type   | Example value                                                                                                                                                                                               | Description                                                                                                 |
|---------------------------|--------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>⌞LoaUrl</b>            | String | http://pconn-loa.oss-cn-shenzhen.aliyuncs.com/1993847644011928_pc-bp1ca4wca27ertsucaxn0_cn-hangzhou-dg-a01.pdf?Expires=1551164196&OSSAccessKeyId=dCrRKgLiFL LHAo6k&Signature=d/w0BARgZ5uJHXODnjpr1oKIEC4%3D | The URL to use to download the LOA file.                                                                    |
| <b>⌞PMInfo</b>            |        |                                                                                                                                                                                                             | The information about the data center cable installation technician or representative.                      |
| <b>⌞PMCertificateNo</b>   | String | 12345671223                                                                                                                                                                                                 | The certificate or licence number of the data center cable installation technician or representative.       |
| <b>⌞PMCertificateType</b> | String | Other                                                                                                                                                                                                       | The type of certificate or licence held by the data center cable installation technician or representative. |
| <b>⌞PMContactInfo</b>     | String | 18910010000                                                                                                                                                                                                 | The contact information of the data center cable installation technician or representative.                 |
| <b>⌞PMGender</b>          | String | Male                                                                                                                                                                                                        | The gender of the data center cable installation technician or representative.                              |
| <b>⌞PMName</b>            | String | name                                                                                                                                                                                                        | The name of the data center cable installation technician or representative.                                |
| <b>⌞SI</b>                | String | ctcu                                                                                                                                                                                                        | The name of the data center cable installation company.                                                     |

| Parameter | Type   | Example value                        | Description                                      |
|-----------|--------|--------------------------------------|--------------------------------------------------|
| └─Status  | String | Available                            | The status of the physical connection interface. |
| RequestId | String | 318BB676-0A2B-43A0-9AD8-F1D34E93750F | The ID of the request.                           |

## Example

### Request example

```
http ( s )://[ Endpoint ]/? InstanceId = pc - bp1ca4wca2 7exxxxxxxx
& RegionId = cn - hangzhou
&< CommonParameters >
```

### Response examples

#### XML format

```
< DescribePhysicalConnectionLOA >
  < code > 200 </ code >
  < data >
    < companyName > test1234 </ companyName >
    < constructionTime > 2019 - 02 - 26T08 : 00 : 00Z </ constructionTime >
    < instanceId > pc - bp1ca4wca2 7ertsucaxn 0 </ instanceId >
    < lineType > MSTP </ lineType >
    < loaUrl > http :// pconn - loa . oss - cn - shenzhen . aliyuncs .
com / 1993847644 011928_pc - bp1ca4wca2 7ertsucaxn 0_cn - hangzhou
- dg - a01 . pdf ? Expires = 1551164196 & amp ; OSSAccessKeyId =
dCrRKgLiFL LHAo6k & amp ; Signature = d / w0BARgZ5uJ HX0Dnjprlo
KIEC4 % 3D </ loaUrl >
    < pmInfo >
      < nextPMIndex > 1 </ nextPMIndex >
      < pmCertificateNo > 1234567 </ pmCertificateNo >
      < pmCertificateType > Other </ pmCertificateType >
      < pmContactInfo > 1891001000 0 </ pmContactInfo >
      < pmGender > Male </ pmGender >
      < pmName > test </ pmName >
    </ pmInfo >
    < si > ctcu </ si >
    < status > Available </ status >
  </ data >
  < message > successful </ message >
  < requestId > 318BB676 - 0A2B - 43A0 - 9AD8 - F1D34E9375 0F </
requestId >
  < success > true </ success >
</ DescribePhysicalConnectionLOA >
```

#### JSON format

```
{
  " message ":" successful ",
  " requestId ":" 318BB676 - 0A2B - 43A0 - 9AD8 - F1D34E9375 0F ",
```

```

" data ":{
  " lineType ":" MSTP ",
  " status ":" Available ",
  " pmInfo ":[
    {
      " pmContactI nfo ":" 1891001000 0 ",
      " pmGender ":" Male ",
      " pmCertific ateNo ":" 1234567 ",
      " pmCertific ateType ":" Other ",
      " nextPMInde x ": 1 ,
      " pmName ":" test "
    }
  ],
  " instanceId ":" pc - bp1ca4wca2 7ertsucaxn 0 ",
  " constructi onTime ":" 2019 - 02 - 26T08 : 00 : 00Z ",
  " companyNam e ":" test1234 ",
  " si ":" ctcu ",
  " loaUrl ":" http :// pconn - loa . oss - cn - shenzhen . aliyuncs
. com / 1993847644 011928_pc - bp1ca4wca2 7ertsucaxn 0_cn -
hangzhou - dg - a01 . pdf ? Expires = 1551164196 & OSSAccessK eyId =
dCrRKgLiFL LHAo6k & Signature = d / w0BARgZ5uJ HXODnjpr1o KIEC4 %
3D "
},
" code ":" 200 ",
" success ": true
}

```

## Error codes

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

# 19 Border Gateway Protocol (BGP)

## 19.1 DescribeBgpNetworks

Query the advertised BGP networks.

Request parameters

| Name         | Type   | Required | Description                                                                                        |
|--------------|--------|----------|----------------------------------------------------------------------------------------------------|
| Action       | String | Yes      | The action to perform. Valid value: DescribeBgpNetworks                                            |
| RegionId     | String | Yes      | The region of the BGP network.<br>You can obtain the region ID by calling the DescribeRegions API. |
| dstCidrBlock | String | No       | The advertised BGP network.                                                                        |
| routeId      | String | No       | The ID of the VBR.                                                                                 |

Response parameters

| Name      | Type   | Description            |
|-----------|--------|------------------------|
| RequestId | String | The ID of the request. |

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DescribeBgpNetworks
&RegionId=cn-beijing
&CommonParameters
```

Response example

· XML format

```
<?xml version="1.0" encoding="UTF-8"?>
  <DescribeBgpNetworksResponse>
    <BgpNetworks>
      <BgpNetwork>
        <DstCidrBlock>10.1.1.0/24</
        <VpcId></VpcId>
      </BgpNetwork>
    </BgpNetworks>
```

```
< RequestId > 6F513A15 - 669F - 419D - B511
- 08A8529205 9B </ RequestId >
< PageSize > 10 </ PageSize >
< TotalCount > 1 </ TotalCount >
</ DescribeBgpNetworksResponse >
```

- JSON format

```
"BgpNetworks": {
  "BgpNetwork": [
    {
      "DstCidrBlock": "10.1.1.0/24",
      "VpcId": ""
    }
  ]
}

"RequestId": "6F513A15 - 669F - 419D - B511 - 08A8529205 9B",
"PageSize": 10,
"TotalCount": 1
```

## 19.2 CreateBgpGroup

Creates a BGP group.

You can use BGP to establish the communication between the Virtual Border Router (VBR) and the on-premises IDC. To use BGP, add the BGP peer communicating with the VBR to the corresponding BGP group and advertise the BGP network in the VBR.

A BGP group is used for simplifying BGP configurations. You can combine repetitive configurations into a BGP group to reduce the configuration complexity. Each BGP group is associated with an autonomous system number (ASN).

Note the following before you call this action:

- The supported BGP version is 4 (BGP4).
- IPv4 BGP is supported, but IPv6 BGP is not supported.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

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

| Parameter   | Type    | Required? | Example value                                | Description                                                                                                                                                                                                              |
|-------------|---------|-----------|----------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PeerASN     | String  | Yes       | 1111                                         | The ASN of the BGP peer.                                                                                                                                                                                                 |
| RegionId    | String  | Yes       | cn-shanghai                                  | The region to which the BGP group belongs.<br>To query the region ID, call DescribeRegions.                                                                                                                              |
| RouterId    | String  | No        | vrt-bp1lhl0tai<br>krteen80oxx                | The ID of the VBR.                                                                                                                                                                                                       |
| Authkey     | String  | No        | !PWZ2wsq                                     | The authentication key of the BGP group.                                                                                                                                                                                 |
| ClientToken | String  | No        | 02fb3da4-130e-<br>-11e9-8e44-<br>0016e04115b | The client token that guarantees the idempotence of the request.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length.                                   |
| Description | String  | No        | BGP                                          | The description of the BGP group.<br>The description must be 2 to 256 characters in length. It must start with a letter, but cannot start with <code>http://</code> or <code>https://</code> .                           |
| IsFakeAsn   | Boolean | No        | true                                         | Indicates whether the ASN is the correct ASN.<br>A router running BGP can only belong to one AS in general. However, in such cases as where an AS needs to be migrated or merged with other ASs, a new ASN must be used. |

| Parameter | Type   | Required? | Example value | Description                                                                                                                                                                                                                                                        |
|-----------|--------|-----------|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name      | String | No        | test          | The name of the BGP group. The name must be 2 to 128 characters in length and can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter. It cannot start with <code>http://</code> or <code>https://</code> . |

### Response parameters

| Parameter  | Type   | Example value                        | Description              |
|------------|--------|--------------------------------------|--------------------------|
| BgpGroupId | String | bgpg-2zendnzngq9lkjkhvlsr            | The ID of the BGP group. |
| RequestId  | String | C1221A1F-2ACD-4592-8F27-474E02883159 | The ID of the request.   |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=CreateBgpGroup
&PeerAsn=1111
&RegionId=cn-shanghai
&RouterId=vrt-bp1lhl0tai-krteen80ox-x
&<CommonParameters>
```

#### Response example

##### • XML format

```
<CreateBgpGroupResponse>
  <BgpGroupId>bgpg-2zendnzngq9lkjkhvlsr</BgpGroupId>
  <RequestId>C1221A1F-2ACD-4592-8F27-474E02883159</RequestId>
</CreateBgpGroupResponse>
```

##### • JSON format

```
{
  "BgpGroupId": "bgpg-2zendnzngq9lkjkhvlsr",
  "RequestId": "C1221A1F-2ACD-4592-8F27-474E02883159"
}
```

}

## Error codes

| HTTP status code | Error code                      | Error message                                   | Description                                                          |
|------------------|---------------------------------|-------------------------------------------------|----------------------------------------------------------------------|
| 400              | QuotaExceeded.Bgp               | bgp peer count per vbr quota exceed.            | The BGP group quota of the VBR has been reached.                     |
| 400              | QuotaExceeded.Nqa               | nqa count per vbr quota exceed.                 | The NQA quota of the VBR has been reached.                           |
| 400              | QuotaExceeded.BgpNetwork        | bgp network count per vbr quota exceed.         | The BGP network quota of the VBR has been reached.                   |
| 400              | InvalidPeerIpAddress            | multi pconn peer ip can not be null.            | The peer IP address of multiple physical connections cannot be null. |
| 400              | InvalidVbrNetwork               | vbr netowrk not exists                          | The specified VBR does not exist.                                    |
| 400              | InvalidBgpName.Malformed        | Specified Bgp Group name is not valid.          | The name of the BGP group is invalid.                                |
| 400              | InvalidBgpDescription.Malformed | Specified Bgp Group description is not valid.   | The description of the BGP group is invalid.                         |
| 400              | InvalidBgpAuthkey.Malformed     | Specified Bgp Group authkey is not valid.       | The authentication key of the BGP group is invalid.                  |
| 404              | InvalidRegionId.NotFound        | The specified RegionId is not found.            | The specified region ID does not exist.                              |
| 400              | InvalidIP.Malformed             | Ip malformed.                                   | The IP address format is invalid.                                    |
| 400              | InvalidPeerAsn.Malformed        | invalid peer asn cannot equals aliyun asn:45104 | The specified ASN cannot be the same as the Alibaba Cloud ASN.       |
| 400              | InvalidParams.NotNull           | invalid peer asn cannot equals aliyun asn:45104 | The specified ASN cannot be the same as the Alibaba Cloud ASN.       |
| 400              | InvalidParams.NotFound          | vpc instance not found                          | The specified VPC does not exist.                                    |

| HTTP status code | Error code                      | Error message                 | Description                                                                                       |
|------------------|---------------------------------|-------------------------------|---------------------------------------------------------------------------------------------------|
| 400              | InvalidParams.<br>AlreadyExists | bgp network already exists    | The specified BGP network already exists.                                                         |
| 400              | InvalidStatus.<br>CannotOperate | invalid status cannot operate | You cannot perform this operation because the status of the resource does not permit this action. |

[See common error codes](#)

## 19.3 DescribeBgpGroups

Queries BGP groups.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter  | Type    | Required ? | Example value                      | Description                                                                                 |
|------------|---------|------------|------------------------------------|---------------------------------------------------------------------------------------------|
| Action     | String  | Yes        | DescribeBgpGroupsDescribeBgpGroups | The name of this action. Value: DescribeBgpGroups                                           |
| RegionId   | String  | Yes        | cn-shanghai                        | The region to which the BGP group belongs.<br>To query the region ID, call DescribeRegions. |
| BgpGroupId | String  | No         | bgpg-wz9f62v4fbg2gxxxxxxxxx        | The ID of the BGP group.                                                                    |
| IsDefault  | Boolean | No         | false                              | Indicates whether the specified BGP group is the default BGP group.                         |

| Parameter    | Type    | Required? | Example value       | Description                                                          |
|--------------|---------|-----------|---------------------|----------------------------------------------------------------------|
| OwnerAccount | String  | No        | 1234abcd@aliyun.com | The owner account.                                                   |
| PageNumber   | Integer | No        | 1                   | The number of pages to return. Default value: 1 .                    |
| PageSize     | Integer | No        | 1                   | The number of rows per page. Maximum value: 50 . Default value: 10 . |
| RouterId     | String  | No        | vrt-kojok19x3j0q6kx | The ID of the VBR associated with the BGP group.                     |

## Response parameters

| Parameter    | Type    | Example value              | Description                                                                                                                           |
|--------------|---------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------|
| TotalCount   | Integer | 10                         | The number of queried entries.                                                                                                        |
| PageNumber   | Integer | 1                          | The current page number.                                                                                                              |
| PageSize     | Integer | 5                          | The number of entries per page.                                                                                                       |
| BgpGroups    |         |                            | A list of BGP groups.                                                                                                                 |
| └AuthKey     | String  | !PWZ2wsq                   | The authentication key used by the BGP group.                                                                                         |
| └BgpGroupId  | String  | bgp-wz977wcrmb69axxxxxxxxx | The ID of the BGP group.                                                                                                              |
| └Description | String  | The                        | The description of the BGP group.                                                                                                     |
| └Hold        | String  | 30                         | The hold time to wait for the BGP message. If no BGP message is received when the hold time is reached, the BGP peer is disconnected. |
| └IsFake      | String  | true                       | Indicates whether the ASN is fake.                                                                                                    |
| └Keepalive   | String  | 10                         | The keep-alive time.                                                                                                                  |
| └LocalAsn    | String  | 45104                      | The local ASN.                                                                                                                        |
| └Name        | String  | BGP名称                      | The name of the BGP group.                                                                                                            |
| └PeerAsn     | String  | 1111                       | The ASN of the BGP peer.                                                                                                              |

| Parameter               | Type   | Example value                                | Description                                                                                   |
|-------------------------|--------|----------------------------------------------|-----------------------------------------------------------------------------------------------|
| <code>RegionId</code>   | String | cn-shanghai                                  | The region ID of the BGP group. For more information, see <a href="#">Regions and zones</a> . |
| <code>RouteLimit</code> | String | 99                                           | The route quota.                                                                              |
| <code>RouterId</code>   | String | vrt-bp1lhl0tai<br>krteen80oxx                | The ID of the VBR.                                                                            |
| <code>Status</code>     | String | active                                       | The status of the BGP peer.                                                                   |
| <code>RequestId</code>  | String | 1D0971B2-A35A<br>-42C1-A44C-<br>E91360C36C0B | The ID of the request.                                                                        |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DescribeBgpGroups
&RegionId=cn-shanghai
&<CommonParameters>
```

### Response example

#### • XML format

```
<DescribeBgpGroupsResponse>
  <TotalCount>1</TotalCount>
  <PageSize>10</PageSize>
  <RequestId>09E2C0FD-37FF-4737-80DF-517AC36D43DB</RequestId>
  <BgpGroups>
    <BgpGroup>
      <BgpGroupId>bgpg-2zev8h2wo414sfhjgdlnh</BgpGroupId>
      <LocalAsn>45104</LocalAsn>
      <Hold>30</Hold>
      <Description/>
      <AuthKey/>
      <IsFake>true</IsFake>
      <PeerAsn>234</PeerAsn>
      <Keepalive>10</Keepalive>
      <RouteLimit>99</RouteLimit>
      <Name>Group1</Name>
      <Status>Pending</Status>
      <RouterId>vbr-2zecmmvg5gvu8i4telkhw</RouterId>
      <RegionId>cn-beijing</RegionId>
    </BgpGroup>
  </BgpGroups>
```

```
</ DescribeBg pGroupsRes ponse >
```

- JSON format

```
{
  " TotalCount ": 1 ,
  " PageSize ": 10 ,
  " RequestId ":" 09E2C0FD - 37FF - 4737 - 80DF - 517AC36D43 DB ",
  " BgpGroups ":{
    " BgpGroup ":[
      {
        " BgpGroupId ":" bgpg - 2zev8h2wo4 14sfhjgdlh h ",
        " LocalAsn ": 45104 ,
        " Hold ": 30 ,
        " Descriptio n ":"",
        " AuthKey ":"",
        " IsFake ": true ,
        " PeerAsn ": 234 ,
        " Keepalive ": 10 ,
        " RouteLimit ": 99 ,
        " Name ":" Group1 ",
        " Status ":" Pending ",
        " RouterId ":" vbr - 2zecmmvg5g vu8i4telkh w ",
        " RegionId ":" cn - beijing "
      }
    ]
  }
}
```

#### Error codes

| HTTP status code | Error code               | Error message                                                | Description                                              |
|------------------|--------------------------|--------------------------------------------------------------|----------------------------------------------------------|
| 500              | InternalServerError      | The request processing has failed due to some unknown error. | An error occurred while the request was being processed. |
| 404              | InvalidRegionId.NotFound | The specified RegionId does not exist in our records.        | The specified region ID does not exist.                  |

[See common error codes](#)

## 19.4 ModifyBgpGroupAttribute

Modifies the configurations of a BGP group.

#### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

## Request parameters

| Parameter   | Type    | Required? | Example value                       | Description                                                                                                                                                                                                              |
|-------------|---------|-----------|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Action      | String  | Yes       | ModifyBgpGroupAttribute             | The name of this action. Value: ModifyBgpGroupAttribute                                                                                                                                                                  |
| BgpGroupId  | String  | Yes       | bgpg-wz9f62v4fbg2gxxxxxxxxx         | The ID of the BGP group.                                                                                                                                                                                                 |
| RegionId    | String  | Yes       | cn-shanghai                         | The region to which the BGP group belongs.<br>To query the region ID, call DescribeRegions.                                                                                                                              |
| AuthKey     | String  | No        | !PWZ2wsq                            | The authentication key of the BGP group.                                                                                                                                                                                 |
| ClientToken | String  | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length.                                      |
| Description | String  | No        | BGP                                 | The description of the BGP group.<br>The description must be 2 to 256 characters in length. It must start with a letter, but cannot start with <code>http://</code> or <code>https://</code> .                           |
| IsFakeAsn   | Boolean | No        | true                                | Indicates whether the ASN is the correct ASN.<br>A router running BGP can only belong to one AS in general. However, in such cases as where an AS needs to be migrated or merged with other ASs, a new ASN must be used. |

| Parameter | Type   | Required? | Example value | Description                                                                                                                                                                                                                                                          |
|-----------|--------|-----------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Name      | String | No        | test          | The name of the BGP group. The name must be 2 to 128 characters in length and can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter. It cannot start with <code>http ://</code> or <code>https ://</code> . |
| PeerASN   | String | No        | 1111          | The ASN of the BGP peer.                                                                                                                                                                                                                                             |

### Request parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 8C3C6D7C-A1CE-4FD8-BC57-DC493A55F76F | The ID of the request. |

### Examples

#### Request example

```
https :// vpc . aliyuncs . com /? Action = ModifyBgpG roupAttrib ute
& BgpGroupId = bgpg - wz9f62v4fb g2gxxxxxxx x
& RegionId = cn - shanghai
&< CommonPara meters >
```

#### Response example

##### • XML format

```
< ModifyBgpG roupAttrib uteResponse >
  < RequestId > C1221A1F - 2ACD - 4592 - 8F27 - 474E028831 59 </
  RequestId >
</ ModifyBgpG roupAttrib uteResponse >
```

##### • JSON format

```
" RequestId ": " C1221A1F - 2ACD - 4592 - 8F27 - 474E028831 59 "
```

## Error codes

| HTTP status code | Error code                      | Error message                                    | Description                                                          |
|------------------|---------------------------------|--------------------------------------------------|----------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound        | Specified value of "regionId" is not supported . | The specified region ID does not exist.                              |
| 400              | QuotaExceeded.Bgp               | bgp peer count per vbr quota exceed.             | The BGP group quota of the VBR has been reached.                     |
| 400              | QuotaExceeded.Nqa               | nqa count per vbr quota exceed.                  | The NQA quota of the VBR has been reached.                           |
| 400              | QuotaExceeded.BgpNetwork        | bgp network count per vbr quota exceed.          | The BGP network quota of the VBR has been reached.                   |
| 400              | InvalidPeerIpAddress            | multi pconn peer ip can not be null.             | The peer IP address of multiple physical connections cannot be null. |
| 400              | InvalidVbrNetwork               | vbr netowrk not exists                           | The specified VBR does not exist.                                    |
| 400              | InvalidBgpGroup                 | bgp group not exists                             | The specified BGP group does not exist.                              |
| 400              | InvalidBgpName.Malformed        | Specified Bgp Group name is not valid.           | The name of the BGP group is invalid.                                |
| 400              | InvalidBgpDiscription.Malformed | Specified Bgp Group description is not valid.    | The description of the BGP group is invalid.                         |
| 400              | InvalidBgpAuthkey.Malformed     | Specified Bgp Group authkey is not valid.        | The authentication key of the BGP group is invalid.                  |
| 400              | InvalidIP.Malformed             | Ip malformed.                                    | The IP address format is invalid.                                    |
| 400              | InvalidPeerAsn.Malformed        | invalid peer asn cannot equals aliyun asn:45104  | The specified ASN cannot be the same as the Alibaba Cloud ASN.       |

| HTTP status code | Error code                      | Error message                                   | Description                                                    |
|------------------|---------------------------------|-------------------------------------------------|----------------------------------------------------------------|
| 400              | InvalidParams.<br>NotNull       | invalid peer asn cannot equals aliyun asn:45104 | The specified ASN cannot be the same as the Alibaba Cloud ASN. |
| 400              | InvalidParams.<br>NotFound      | vpc instance not found                          | The specified VPC does not exist.                              |
| 400              | InvalidParams.<br>AlreadyExists | bgp network already exists                      | The specified BGP network already exists.                      |
| 400              | InvalidStatus.<br>CannotOperate | invalid status cannot operate                   | The status of the resource does not permit this action.        |

[See common error codes](#)

## 19.5 DeleteBgpGroup

Deletes a BGP group.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter  | Type   | Required? | Example value               | Description                                                                                 |
|------------|--------|-----------|-----------------------------|---------------------------------------------------------------------------------------------|
| Action     | String | Yes       | DeleteBgpGroup              | The name of this action. Value: DeleteBgpGroup                                              |
| BgpGroupId | String | Yes       | bgpg-wz9f62v4fbg2gxxxxxxxxx | The ID of the BGP group.                                                                    |
| RegionId   | String | Yes       | cn-shanghai                 | The region to which the BGP group belongs.<br>To query the region ID, call DescribeRegions. |

| Parameter   | Type   | Required? | Example value                       | Description                                                                                                                                                                            |
|-------------|--------|-----------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ClientToken | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | The client token that guarantees the idempotence of the request.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length. |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 97E2E97F-968C-48AF-A310-AC4D068854DB | The ID of the request. |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=DeleteBgpGroup
&BgpGroupId=bgpg-wz9f62v4fbg2gxxxxxxxxx
&RegionId=cn-shanghai
&<CommonParameters>
```

#### Response example

- XML format

```
<DeleteBgpGroupResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCA-C0</RequestId>
</DeleteBgpGroupResponse>
```

- JSON format

```
{
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCA-C0"
```

}

## Error codes

| HTTP status code | Error code                      | Error message                                    | Description                                                          |
|------------------|---------------------------------|--------------------------------------------------|----------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound        | Specified value of "regionId" is not supported . | The specified region ID does not exist.                              |
| 400              | QuotaExceeded.Bgp               | bgp peer count per vbr quota exceed.             | The BGP group quota of the VBR has been reached.                     |
| 400              | QuotaExceeded.Nqa               | nqa count per vbr quota exceed.                  | The BGP group quota of the VBR has been reached.                     |
| 400              | QuotaExceeded.BgpNetwork        | bgp network count per vbr quota exceed.          | The BGP network quota of the VBR has been reached.                   |
| 400              | InvalidPeerIpAddress            | multi pconn peer ip can not be null.             | The peer IP address of multiple physical connections cannot be null. |
| 400              | InvalidVbrNetwork               | vbr netowrk not exists                           | The specified VBR does not exist.                                    |
| 400              | InvalidBgpGroup                 | bgp group not exists                             | The specified BGP group does not exist.                              |
| 400              | InvalidBgpName.Malformed        | Specified Bgp Group name is not valid.           | The name of the BGP group is invalid.                                |
| 400              | InvalidBgpDiscription.Malformed | Specified Bgp Group description is not valid.    | The description of the BGP group is invalid.                         |
| 400              | InvalidBgpAuthkey.Malformed     | Specified Bgp Group authkey is not valid.        | The authentication key of the BGP group is invalid.                  |
| 400              | InvalidIP.Malformed             | Ip malformed.                                    | The IP address format is invalid.                                    |
| 400              | InvalidPeerAsn.Malformed        | invalid peer asn cannot equals aliyun asn:45104  | The specified ASN cannot be the same as the Alibaba Cloud ASN.       |

| HTTP status code | Error code                      | Error message                                   | Description                                                    |
|------------------|---------------------------------|-------------------------------------------------|----------------------------------------------------------------|
| 400              | InvalidParams.<br>NotNull       | invalid peer asn cannot equals aliyun asn:45104 | The specified ASN cannot be the same as the Alibaba Cloud ASN. |
| 400              | InvalidParams.<br>NotFound      | vpc instance not found                          | The specified VPC does not exist.                              |
| 400              | InvalidParams.<br>AlreadyExists | bgp network already exists                      | The specified BGP network already exists.                      |
| 400              | InvalidStatus.<br>CannotOperate | invalid status cannot operate                   | The status of the resource does not permit this action.        |

[See common error codes](#)

## 19.6 CreateBgpPeer

Adds a BGP peer to a BGP group.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter  | Type   | Required? | Example value           | Description                                                                                 |
|------------|--------|-----------|-------------------------|---------------------------------------------------------------------------------------------|
| Action     | String | Yes       | CreateBgpPeer           | The name of this action. Value: CreateBgpPeer                                               |
| BgpGroupId | String | Yes       | bgpg-wz9f62v4fbg2gwwasa | The ID of the BGP group.                                                                    |
| RegionId   | String | Yes       | cn-shanghai             | The region to which the BGP group belongs.<br>To query the region ID, call DescribeRegions. |

| Parameter     | Type   | Required? | Example value                       | Description                                                                                                                                                                            |
|---------------|--------|-----------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ClientToken   | String | 否         | 02fb3da4-130e-11e9-8e44-0016e04115b | The client token that guarantees the idempotence of the request.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length. |
| PeerIpAddress | String | Yes       | 116.62.222.28                       | The IP address of the BGP peer.                                                                                                                                                        |

### Response parameters

| Parameter | Type   | Example value                        | Description             |
|-----------|--------|--------------------------------------|-------------------------|
| BgpPeerId | String | Bgp-awjhd2d34dd                      | The ID of the BGP peer. |
| RequestId | String | D4B7649A-61BB-4C64-A586-1DFF1EDA6A42 | The ID of the request.  |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=CreateBgpPeer
&BgpGroupId=bgpg-wz9f62v4fb_g2gwwasa
&RegionId=cn-shanghai
&<CommonParameters>
```

#### Response example

##### • XML format

```
<CreateBgpPeerResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCA C0</
  RequestId>
</CreateBgpPeerResponse>
```

##### • JSON format

```
{
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCA C0"
```

}

## Error codes

| HTTP status code | Error code                      | Error message                                    | Description                                                          |
|------------------|---------------------------------|--------------------------------------------------|----------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound        | Specified value of "regionId" is not supported . | The specified region ID does not exist.                              |
| 400              | QuotaExceeded.Bgp               | bgp peer count per vbr quota exceed.             | The BGP group quota of the VBR has been reached.                     |
| 400              | QuotaExceeded.Nqa               | nqa count per vbr quota exceed.                  | The NQA quota of the VBR has been reached.                           |
| 400              | QuotaExceeded.BgpNetwork        | bgp network count per vbr quota exceed.          | The BGP network quota of the VBR has been reached.                   |
| 400              | InvalidPeerIpAddress            | multi pconn peer ip can not be null.             | The peer IP address of multiple physical connections cannot be null. |
| 400              | InvalidVbrNetwork               | vbr netowrk not exists                           | The specified VBR does not exist.                                    |
| 400              | InvalidBgpName.Malformed        | Specified Bgp Group name is not valid.           | The name of the BGP group is invalid.                                |
| 400              | InvalidBgpDiscription.Malformed | Specified Bgp Group description is not valid.    | The description of the BGP group is invalid.                         |
| 400              | InvalidBgpAuthkey.Malformed     | Specified Bgp Group authkey is not valid.        | The authentication key of the BGP group is invalid.                  |
| 400              | InvalidIP.Malformed             | Ip malformed.                                    | The IP address format is invalid.                                    |
| 400              | InvalidPeerAsn.Malformed        | invalid peer asn cannot equals aliyun asn:45104  | The specified ASN cannot be the same as the Alibaba Cloud ASN.       |
| 400              | InvalidParams.NotNull           | invalid peer asn cannot equals aliyun asn:45104  | The specified ASN cannot be the same as the Alibaba Cloud ASN.       |

| HTTP status code | Error code                  | Error message                 | Description                                                |
|------------------|-----------------------------|-------------------------------|------------------------------------------------------------|
| 400              | InvalidParams.NotFound      | vpc instance not found        | The specified VPC does not exist.                          |
| 400              | InvalidParams.AlreadyExists | bgp network already exists    | The specified BGP network already exists.                  |
| 400              | InvalidStatus.CannotOperate | invalid status cannot operate | The status of the resource does not permit this operation. |

[See common error codes](#)

## 19.7 DescribeBgpPeers

Queries one or more BGP peers in a region.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter  | Type   | Required? | Example value              | Description                                                                                |
|------------|--------|-----------|----------------------------|--------------------------------------------------------------------------------------------|
| Action     | String | Yes       | DescribeBgpPeers           | The name of this action. Value: DescribeBgpPeers                                           |
| RegionId   | String | Yes       | cn-shanghai                | The region to which the BGP peer belongs.<br>To query the region ID, call DescribeRegions. |
| BgpGroupId | String | No        | bgpg-2zev8h2wo414sfhjgdlhh | The ID of the BGP group.                                                                   |
| BgpPeerId  | String | No        | bgp-2ze3un0ft1jd1xdppusul  | The ID of the BGP peer.                                                                    |

| Parameter    | Type    | Required? | Example value       | Description                                                          |
|--------------|---------|-----------|---------------------|----------------------------------------------------------------------|
| IsDefault    | Boolean | No        | false               | Indicates whether the specified BGP group is the default BGP group.  |
| OwnerAccount | String  | No        | xxx@aliyun.com      | The owner account.                                                   |
| PageNumber   | Integer | No        | 1                   | The number of pages to return. Default value: 1 .                    |
| PageSize     | Integer | No        | 1                   | The number of rows per page. Maximum value: 50 . Default value: 10 . |
| RouterId     | String  | No        | vrt-acfmxazb4ph6aiy | The ID of the VBR.                                                   |

## Response parameters

| Parameter      | Type   | Example value              | Description                              |
|----------------|--------|----------------------------|------------------------------------------|
| BgpPeers       | N/A    | N/A                        | A list of BGP peers.                     |
| └Name          | String | test                       | The name of the BGP peer.                |
| └PeerIpAddress | String | 116.62.222.28              | The IP address of the BGP peer.          |
| └AuthKey       | String | !PWZ2wsq                   | The authentication key of the BGP group. |
| └RouterId      | String | vbr-2zecmmvg5gvu8i4telkhw  | The ID of the router.                    |
| └Status        | String | active                     | The status of the BGP peer.              |
| └BgpGroupId    | String | bgp-wz977wcrmb69axxxxxxxxx | The ID of the BGP group.                 |
| └BgpPeerId     | String | bgp-wz977wcrmb69agdbab8s1  | The ID of the BGP peer.                  |
| └BgpStatus     | String | Established                | The connection status of the BGP.        |
| └Description   | String | xxxxxxxxxx                 | The description of the BGP group.        |

| Parameter  | Type    | Example value                        | Description                                          |
|------------|---------|--------------------------------------|------------------------------------------------------|
| Hold       | String  | 30                                   | The hold time.                                       |
| IsFake     | String  | true                                 | Indicates whether a fake ASN is enabled.             |
| Keepalive  | String  | 10                                   | The keep-alive time.                                 |
| LocalAsn   | String  | 45104                                | The local ASN.                                       |
| PeerAsn    | String  | active                               | The ASN of the BGP peer.                             |
| RegionId   | String  | cn-shanghai                          | The ID of the region to which the BGP group belongs. |
| RouteLimit | String  | 99                                   | The route quota.                                     |
| TotalCount | Integer | 10                                   | The number of queried entries.                       |
| PageNumber | Integer | 1                                    | The current page number.                             |
| PageSize   | Integer | 2                                    | The number of entries per page.                      |
| RequestId  | String  | DE77A7F3-3B74-41C0-A5BC-CAFD188C28B6 | The ID of the request.                               |

## Examples

### Request example

```
https://vpc.aliyuncs.com/?Action=DescribeBgpPeers
&RegionId=cn-shanghai
&<CommonParameters>
```

### Response example

#### • XML format

```
<?xml version="1.0" encoding="UTF-8"?>
<DescribeBgpGroupsResponse>
  <TotalCount>2</TotalCount>
  <PageSize>10</PageSize>
  <RequestId>16DFA5E6-9771-41B7-B079-DD7C2DF49BE6</RequestId>
  <BgpPeers>
    <BgpPeer>
      <BgpGroupId>bpg-2zev8h2wo414sfhjgdlh</BgpGroupId>
      <LocalAsn>45104</LocalAsn>
      <PeerIpAddress>11.11.11.1</PeerIpAddress>
      <Hold>30</Hold>
      <Description></Description>
      <AuthKey></AuthKey>
      <IsFake>true</IsFake>
      <PeerAsn>234</PeerAsn>
      <Keepalive>10</Keepalive>
```

```

< RouteLimit > 99 </ RouteLimit >
< BgpPeerId > bgp - 2ze3un0ft1 jd1xdppusu l </ BgpPeerId >
< Name ></ Name >
< Status > Available </ Status >
< BgpStatus ></ BgpStatus >
< RouterId > vbr - 2zecmmvg5g vu8i4telkh w </ RouterId >
< RegionId > cn - beijing </ RegionId >
</ BgpPeer >
< BgpPeer >
< BgpGroupId > bgpg - 2zev8h2wo4 14sfhjgdlh h </ BgpGroupId >
< LocalAsn > 45104 </ LocalAsn >
< PeerIpAddress > 11 . 11 . 11 . 2 </ PeerIpAddress >
< Hold > 30 </ Hold >
< Description ></ Description >
< AuthKey ></ AuthKey >
< IsFake > true </ IsFake >
< PeerAsn > 234 </ PeerAsn >
< Keepalive > 10 </ Keepalive >
< RouteLimit > 99 </ RouteLimit >
< BgpPeerId > bgp - 2zeu54rbre qqzyb5bg1h q </ BgpPeerId >
< Name ></ Name >
< Status > Available </ Status >
< BgpStatus ></ BgpStatus >
< RouterId > vbr - 2zecmmvg5g vu8i4telkh w </ RouterId >
< RegionId > cn - beijing </ RegionId >
</ BgpPeer >
</ BgpPeers >
</ DescribeBgpGroupsResponse >

```

#### · JSON format

```

{
  "TotalCount": 2,
  "PageSize": 10,
  "RequestId": "16DFA5E6 - 9771 - 41B7 - B079 - DD7C2DF49B E6",
  "BgpPeers": {
    "BgpPeer": [
      {
        "BgpGroupId": "bgpg - 2zev8h2wo4 14sfhjgdlh h",
        "LocalAsn": 45104,
        "PeerIpAddress": "11 . 11 . 11 . 1",
        "Hold": 30,
        "Description": "",
        "AuthKey": "",
        "IsFake": true,
        "PeerAsn": 234,
        "Keepalive": 10,
        "RouteLimit": 99,
        "BgpPeerId": "bgp - 2ze3un0ft1 jd1xdppusu l",
        "Name": "",
        "Status": "Available",
        "BgpStatus": "",
        "RouterId": "vbr - 2zecmmvg5g vu8i4telkh w",
        "RegionId": "cn - beijing"
      },
      {
        "BgpGroupId": "bgpg - 2zev8h2wo4 14sfhjgdlh h",
        "LocalAsn": 45104,
        "PeerIpAddress": "11 . 11 . 11 . 2",
        "Hold": 30,
        "Description": "",
        "AuthKey": "",
        "IsFake": true,

```

```

    " PeerAsn ": 234 ,
    " Keepalive ": 10 ,
    " RouteLimit ": 99 ,
    " BgpPeerId ":" bgp - 2zeu54rbre qqzyb5bg1h q ",
    " Name ":"",
    " Status ":" Available ",
    " BgpStatus ":"",
    " RouterId ":" vbr - 2zecmmvg5g vu8i4telkh w ",
    " RegionId ":" cn - beijing "
  }
]
}
}

```

### Error codes

| HTTP status code | Error code               | Error message                                                | Description                                              |
|------------------|--------------------------|--------------------------------------------------------------|----------------------------------------------------------|
| 500              | InternalServerError      | The request processing has failed due to some unknown error. | An error occurred while the request was being processed. |
| 404              | InvalidRegionId.NotFound | The specified RegionId does not exist in our records.        | The specified region ID does not exist.                  |

[See common error codes](#)

## 19.8 DeleteBgpPeer

Deletes a BGP peer.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter | Type   | Required? | Example value             | Description                                   |
|-----------|--------|-----------|---------------------------|-----------------------------------------------|
| Action    | String | Yes       | DeleteBgpPeer             | The name of this action. Value: DeleteBgpPeer |
| BgpPeerId | String | Yes       | bgp-wz977wcrmb69axxxxxxxx | The ID of the BGP peer.                       |

| Parameter   | Type   | Required? | Example value                       | Description                                                                                                                                                                            |
|-------------|--------|-----------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| RegionId    | String | Yes       | cn-shanghai                         | The region to which the BGP group belongs.<br>To query the region ID, call DescribeRegions.                                                                                            |
| ClientToken | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | The client token that guarantees the idempotence of the request.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length. |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | AEBB1EB6-3C15-4A35-B4CE-03485200C143 | The ID of the request. |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=DeleteBgpPeer
&BgpPeerId=bgp-wz977wcrmb69axxxxxxx
&RegionId=cn-shanghai
&<CommonParameters>
```

#### Response example

- XML format

```
<?xml version="1.0" encoding="UTF-8"?>
<DeleteBgpPeerResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCA C0</RequestId>
</DeleteBgpPeerResponse>
```

- JSON format

```
{
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCA C0"
```

}

## Error codes

| HTTP status code | Error code                      | Error message                                    | Description                                                          |
|------------------|---------------------------------|--------------------------------------------------|----------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound        | Specified value of "regionId" is not supported . | The specified region ID does not exist.                              |
| 400              | QuotaExceeded.Bgp               | bgp peer count per vbr quota exceed.             | The BGP group quota of the VBR has been reached.                     |
| 400              | QuotaExceeded.Nqa               | nqa count per vbr quota exceed.                  | The NQA quota of the VBR has been reached.                           |
| 400              | QuotaExceeded.BgpNetwork        | bgp network count per vbr quota exceed.          | The BGP network quota of the VBR has been reached.                   |
| 400              | InvalidPeerIpAddress            | multi pconn peer ip can not be null.             | The peer IP address of multiple physical connections cannot be null. |
| 400              | InvalidVbrNetwork               | vbr netowrk not exists                           | The specified VBR does not exist.                                    |
| 400              | InvalidBgpGroup                 | bgp group not exists                             | The specified BGP group does not exist.                              |
| 400              | InvalidBgpName.Malformed        | Specified Bgp Group name is not valid.           | The name of the BGP group is invalid.                                |
| 400              | InvalidBgpDiscription.Malformed | Specified Bgp Group description is not valid.    | The description of the BGP group is invalid.                         |
| 400              | InvalidBgpAuthkey.Malformed     | Specified Bgp Group authkey is not valid.        | The authentication key of the BGP group is invalid.                  |
| 400              | InvalidIP.Malformed             | Ip malformed.                                    | The IP address format is invalid.                                    |
| 400              | InvalidPeerAsn.Malformed        | invalid peer asn cannot equals aliyun asn:45104  | The specified ASN cannot be the same as the Alibaba Cloud ASN.       |

| HTTP status code | Error code                  | Error message                                   | Description                                                      |
|------------------|-----------------------------|-------------------------------------------------|------------------------------------------------------------------|
| 400              | InvalidParams.NotNull       | invalid peer asn cannot equals aliyun asn:45104 | The specified ASN cannot be the same as the Alibaba Cloud ASN.   |
| 400              | InvalidParams.NotFound      | vpc instance not found                          | The specified VPC does not exist.                                |
| 400              | InvalidParams.AlreadyExists | bgp network already exists                      | The specified BGP network already exists.                        |
| 400              | InvalidStatus.CannotOperate | invalid status cannot operate                   | You cannot perform this operation because the status is invalid. |

[See common error codes](#)

## 19.9 AddBgpNetwork

Advertises a BGP network.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter    | Type   | Required? | Example value              | Description                                                                                 |
|--------------|--------|-----------|----------------------------|---------------------------------------------------------------------------------------------|
| Action       | String | Yes       | AddBgpNetwork              | The name of this action. Value: AddBgpNetwork                                               |
| DstCidrBlock | String | Yes       | 10.110.192.12/32           | The CIDR block of the VPC or VSwitch to be connected to the on-premises data center.        |
| RegionId     | String | Yes       | cn-shanghai                | The region to which the VBR group belongs.<br>To query the region ID, call DescribeRegions. |
| RouterId     | String | Yes       | vrt-2zeo3xzyf38r4urzdvpvfs | The ID of the VBR.                                                                          |

| Parameter   | Type   | Required? | Example value                       | Description                                                                                                                                                                            |
|-------------|--------|-----------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ClientToken | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | The client token that guarantees the idempotence of the request.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length. |
| VpcId       | String | No        | vpc-bp1qpo0kug3a20qqe9h7v           | The ID of the VPC.                                                                                                                                                                     |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 9C7FA9D6-72E0-48A9-A9C3-2DA8569CD5EB | The ID of the request. |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=AddBgpNetwork
&DstCidrBlock=10.110.192.12/32
&RegionId=cn-shanghai
&RouterId=vrt-2zeo3xzyf38r4urzdvpfs
&<CommonParameters>
```

#### Response example

- XML format

```
<AddBgpNetworkResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCA C0</
  RequestId>
</AddBgpNetworkResponse>
```

- JSON format

```
{
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCA C0"
```

}

## Error codes

| HTTP status code | Error code                      | Error message                                   | Description                                                          |
|------------------|---------------------------------|-------------------------------------------------|----------------------------------------------------------------------|
| 400              | QuotaExceeded.Bgp               | bgp peer count per vbr quota exceed.            | The BGP group quota of the VBR has been reached.                     |
| 400              | QuotaExceeded.Nqa               | nqa count per vbr quota exceed.                 | The NQA quota of the VBR has been reached.                           |
| 400              | QuotaExceeded.BgpNetwork        | bgp network count per vbr quota exceed.         | The BGP network quota of the VBR has been reached.                   |
| 400              | InvalidPeerIpAddress            | multi pconn peer ip can not be null.            | The peer IP address of multiple physical connections cannot be null. |
| 400              | InvalidVbrNetwork               | vbr netowrk not exists                          | The specified VBR does not exist.                                    |
| 400              | InvalidBgpName.Malformed        | Specified Bgp Group name is not valid.          | The name of the BGP group is invalid.                                |
| 400              | InvalidBgpDiscription.Malformed | Specified Bgp Group description is not valid.   | The description of the BGP group is invalid.                         |
| 400              | InvalidBgpAuthkey.Malformed     | Specified Bgp Group authkey is not valid.       | The authentication key of the BGP group is invalid.                  |
| 400              | InvalidIP.Malformed             | Ip malformed.                                   | The IP address format is invalid.                                    |
| 400              | InvalidPeerAsn.Malformed        | invalid peer asn cannot equals aliyun asn:45104 | The specified ASN cannot be the same as the Alibaba Cloud ASN.       |
| 400              | InvalidParams.NotNull           | parameter must not null.                        | This parameter cannot be null.                                       |
| 400              | InvalidParams.NotFound          | vpc instance not found                          | The specified VPC does not exist.                                    |
| 400              | InvalidParams.AlreadyExists     | bgp network already exists                      | The specified BGP network already exists.                            |

| HTTP status code | Error code                      | Error message                                         | Description                                                |
|------------------|---------------------------------|-------------------------------------------------------|------------------------------------------------------------|
| 400              | InvalidStatus.<br>CannotOperate | invalid status cannot operate                         | The status of the resource does not permit this operation. |
| 404              | InvalidRegionId.<br>NotFound    | The specified RegionId does not exist in our records. | The specified region ID does not exist.                    |

[See common error codes](#)

## 19.10 DeleteBgpNetwork

Deletes an advertised BGP network.

### Debug

By using [API Explorer](#), you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

### Request parameters

| Parameter    | Type   | Required ? | Example value                 | Description                                                                                   |
|--------------|--------|------------|-------------------------------|-----------------------------------------------------------------------------------------------|
| Action       | String | Yes        | DeleteBgpNetwork              | The name of this action. Value: DeleteBgpNetwork                                              |
| dstCidrBlock | String | Yes        | 10.110.192.12/32              | The advertised BGP network.                                                                   |
| RegionId     | String | Yes        | cn-hangzhou                   | The region to which the BGP network belongs.<br>To query the region ID, call DescribeRegions. |
| routeId      | String | Yes        | vrt-bp1lhl0tai<br>krteen80oxx | The ID of the VBR.                                                                            |

| Parameter   | Type   | Required? | Example value                       | Description                                                                                                                                                                            |
|-------------|--------|-----------|-------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ClientToken | String | No        | 02fb3da4-130e-11e9-8e44-0016e04115b | The client token that guarantees the idempotence of the request.<br>This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length. |

### Response parameters

| Parameter | Type   | Example value                        | Description            |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | 22F4C006-D3BB-4F96-9FF9-4C8335276D70 | The ID of the request. |

### Examples

#### Request example

```
https://vpc.aliyuncs.com/?Action=DeleteBgpNetwork
&DstCidrBlock=10.110.192.12/32
&RegionId=cn-hangzhou
&RouterId=vrt-bp1lhl0tai-krteen80ox-x
&<CommonParameters>
```

#### Response example

- XML format

```
<DeleteBgpNetworkResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCA-C0</RequestId>
</DeleteBgpNetworkResponse>
```

- JSON format

```
{
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCA-C0"
```

}

## Error codes

| HTTP status code | Error code                      | Error message                                    | Description                                                          |
|------------------|---------------------------------|--------------------------------------------------|----------------------------------------------------------------------|
| 404              | InvalidRegionId.NotFound        | Specified value of "regionId" is not supported . | The specified region ID does not exist.                              |
| 400              | QuotaExceeded.Bgp               | bgp peer count per vbr quota exceed.             | The BGP group quota of the VBR has been reached.                     |
| 400              | QuotaExceeded.Nqa               | nqa count per vbr quota exceed.                  | The NQA quota of the VBR has been reached.                           |
| 400              | QuotaExceeded.BgpNetwork        | bgp network count per vbr quota exceed.          | The BGP network quota of the VBR has been reached.                   |
| 400              | InvalidPeerIpAddress            | multi pconn peer ip can not be null.             | The peer IP address of multiple physical connections cannot be null. |
| 400              | InvalidVbrNetwork               | vbr netowrk not exists                           | The specified VBR does not exist.                                    |
| 400              | InvalidBgpGroup                 | bgp group not exists                             | The specified BGP group does not exist.                              |
| 400              | InvalidBgpName.Malformed        | Specified Bgp Group name is not valid.           | The name of the BGP group is invalid.                                |
| 400              | InvalidBgpDiscription.Malformed | Specified Bgp Group description is not valid.    | The description of the BGP group is invalid.                         |
| 400              | InvalidBgpAuthkey.Malformed     | Specified Bgp Group authkey is not valid.        | The authentication key of the BGP group is invalid.                  |
| 400              | InvalidIP.Malformed             | Ip malformed.                                    | The IP address format is invalid.                                    |
| 400              | InvalidPeerAsn.Malformed        | invalid peer asn cannot equals aliyun asn:45104  | The specified ASN cannot be the same as the Alibaba Cloud ASN.       |

| HTTP status code | Error code                      | Error message                                   | Description                                                    |
|------------------|---------------------------------|-------------------------------------------------|----------------------------------------------------------------|
| 400              | InvalidParams.<br>NotNull       | invalid peer asn cannot equals aliyun asn:45104 | The specified ASN cannot be the same as the Alibaba Cloud ASN. |
| 400              | InvalidParams.<br>NotFound      | vpc instance not found                          | The specified VPC does not exist.                              |
| 400              | InvalidParams.<br>AlreadyExists | bgp network already exists                      | The specified BGP network already exists.                      |
| 400              | InvalidStatus.<br>CannotOperate | invalid status cannot operate                   | The status of the resource does not permit this operation.     |

[See common error codes](#)