Virtual Private Cloud

Developer Guide

Developer Guide

API Reference

Call VPC APIs

Request structure

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

The request structure is as follows:

http://endpoint/?Action=xx&Parameters

where:

Endpoint is the entry of the Alibaba Cloud service to call. The endpoint of VPC is vpc.aliyuncs.com.

Action is the action to perform. For example, use the DescribeVpcs API to query created VPCs.

Version is the version of the API. The VPC API version is 2016-04-28.

Parameters are request parameters separated by ampersands (&).

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

The API version of VPC is 2016-04-28.

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

http://vpc.aliyuncs.com/?Action=DescribeVpcs&AccessKeyId=key-test&Format=JSON&SecureTransport=true&SignatureMethod=HMAC-SHA1&SignatureNonce=15215528852396&SignatureVersion=1.0&SourceIp=1xxxx6&Timestamp=2018-03-02Txxxxxxx&Version=2016-04-28&Signature=xxxx%xxxx%3D

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

```
https://vpc.aliyuncs.com/?Action=DescribeVpcs
&Format=xml
&Version=2016-04-28
&Signature=xxxx%xxxx%3D
&SignatureMethod=HMAC-SHA1
&SignatureNonce=15215528852396
&SignatureVersion=1.0
&AccessKeyId=key-test
&Timestamp=2018-06-01T12:00:00Z
...
```

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.

Each time you manually call an API, you must use the AccessKey secret to calculate the HMAC value of the encoded and sorted request string as defined RFC 2104. The calculated HMAC value is the value of the signature parameter in the request.

Note: Alibaba Cloud provides multiple SDKs and third-party SDKs to make the manual signature process more efficient.

Add the signature to the API request in the following format:

https://vpc.aliyuncs.com/?Action=XXX&SignatureVersion=1.0&SignatureMethod=HMAC-SHA1&Signature=CT9X0VtwR86fNWSnsc6v8YGOjuE%3D&SignatureNonce=3ee8c1b8-83d3-44af-a94f-4e0ad82fd6cf

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

http://vpc.aliyuncs.com/?TimeStamp=2016-02-

23T12:46:24Z&Format=XML&AccessKeyId=testid&Action=DescribeVpcs&SignatureMethod=HMAC-SHA1&SignatureNonce=3ee8c1b8-83d3-44af-a94f-4e0ad82fd6cf&Version=2016-04-28&SignatureVersion=1.0

Follow these steps to calculate the signature:

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

The constructed string to sign is as follows:

```
GET&%2F&AccessKeyId%3Dtestid&Action%3DDescribeVpcs&Format%3DXML&SignatureMethod%3DHMAC-SHA1&SignatureNonce%3D3ee8c1b8-83d3-44af-a94f-4e0ad82fd6cf&SignatureVersion%3D1.0&TimeStamp%3D2016-02-23T12%253A46%253A24Z&Version%3D2016-04-28
```

Calculate the HMAC value of the string to sign.

Append an ampersand to the AccessKey secret as the key to calculate the HMAC value. In this example, the key is testsecret&.

The calculated signature in this example is as follows:

CT9X0VtwR86fNWSnsc6v8YGOjuE=

Add the signature to the request URL.

The final request URL is as follows:

http://vpc.aliyuncs.com/?Action=DescribeVpcs &SignatureVersion=1.0 SignatureNonce=3ee8c1b8-83d3-44af-a94f-4e0ad82fd6cf &Version=2016-04-28 &AccessKeyId=testid &Signature=CT9X0VtwR86fNWSnsc6v8YGOjuE%3D &SignatureMethod=HMAC-SHA1&TimeStamp=2014-02-23T12%3A46%3A24Z &Format=XML&

Common parameters

The following common request parameters must be added each time calling an API, and a request ID will be returned no matter the request is successful or not.

Common request parameters

Parameter	Data Type	Required	Description
Version	String	Yes	The version of the API in the format of 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. For more information, see Sign RPC APIs
SignatureMethod	String	Yes	The algorithm used to create the request signature. Valid value: HMAC-SHA1
Timestamp	String	Yes	The time at which the quest is signed in the format of YYYY-MM-DDThh:mm:ssZ. Example: 2016-04-28T12:00:00Z
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.
ResourceOwnerAccount	String	No	The account owner of the resource that this request calls.
Format	String	No	The format of the response. Valid values: JSON | XML (default value)

```
http://vpc.aliyuncs.com/?Action=DescribeVpcs
&Timestamp=2018-05-19T10%3A33%3A56Z
&Format=xml
&AccessKeyId=testid
&SignatureMethod=Hmac-SHA1
&SignatureNonce=NwDAxvLU6tFE0DVb
&Version=2016-04-28
&SignatureVersion=1.0
&Signature=FZnIrdNSLax4lnWf6NkKDc7mp54%3D
```

Common response parameters

A RequestId is returned no matter the request is successful or not.

XML format

```
<?xml version="1.0" encoding="UTF-8"?>
<!--The root node of the result-->
<Action+Response>
<RequestId>4C467B38-3910-447D-87BC-AC049166F216</RequestId>
<!--The returned result -->
</Action+Response>
```

JSON format

```
{
"RequestId": "4C467B38-3910-447D-87BC-AC049166F216",
/* The returned response */
}
```

RAM authentication

Before calling VPC APIs using a RAM user, 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 document introduces the VPC resources and APIs that can be authorized and the corresponding ARN format.

VPC resources

The following table lists the VPC resources that can be authorized and the ARN format.

Resource type	Resource description in the authorization rule
VPC	acs:vpc:$regionid:$accountid:vpc/$vpcid acs:vpc:$regionid:$accountid:vpc/* acs:vpc:*:$accountid:vpc/*
VRouter	acs:vpc:$regionid:$accountid:vrouter/$vrouterid acs:vpc:$regionid:$accountid:vrouter/* acs:vpc:*:$accountid:vrouter/*
VSwitch	acs:vpc:$regionid:$accountid:vswitch/$vswitchid acs:vpc:$regionid:$accountid:vswitch/* acs:vpc:*:$accountid:vswitch/*
Route Table	acs:vpc:$regionid:$accountid:routetable/$routetableid acs:vpc:$regionid:$accountid:routetable/* acs:vpc:*:$accountid:routetable/*
HaVip	acs:vpc:$regionid:$accountid:havip/$havipid acs:vpc:$regionid:$accountid:havip/* acs:vpc:*:$accountid:havip/*
EIP	acs:vpc:$regionid:$accountid:eip/$allocationid acs:vpc:$regionid:$accountid:eip/* acs:vpc:*:$accountid:eip/*
NAT Gateway	acs:vpc:$regionid:$accountid:natgateway/$natgatewayid acs:vpc:$regionid:$accountid:natgateway/* acs:vpc*:$accountid:vpc/*
NAT Gateway Bandwidth Package	acs:vpc:$regionid:$accountid:bandwidthpackage/$bandwidthpackageid acs:vpc:$regionid:$accountid:bandwidthpackage/* acs:vpc:*:$accountid:vpc/*
Forward Table	acs:vpc:$regionid:$accountid:forwardtable/$forwardtableid acs:vpc:$regionid:$accountid:forwardtable/* acs:vpc:*:$accountid:vpc/*
SNAT Table	acs:vpc:$regionid:$accountid:snattable/$snattableid acs:vpc:$regionid:$accountid:snattable/* acs:vpc:*:$accountid:vpc/*
Customer Gateway	acs:vpc:$regionid:$accountid:customergateway/$customergatewayid acs:vpc:$regionid:$accountid:customergateway/* acs:vpc:*:$accountid:customergateway/*
IPsec Connection	acs:vpc:$regionid:$accountid:vpnconnection/$vpnconnectionid acs:vpc:$regionid:$accountid:vpnconnection/*

	acs:vpc:*:$accountid:vpnconnection/*
VPN Gateway	acs:vpc:$regionid:$accountid:vpngateway/$vpngatewayid acs:vpc:$regionid:$accountid:vpngateway/* acs:vpc:*:$accountid:vpngateway/*
Global Acceleration Instance	acs:vpc:$regionid:$accountid:globalaccelerationinstance /$globalaccelerationinstanceid acs:vpc:$regionid:$accountid:globalaccelerationinstance / *acs:vpc:*:$accountid:globalaccelerationinstance /*
General Expression	acs:vpc:$regionid:$accountid:* acs:vpc:*:$accountid:*

VPC APIs

The following table lists the VPC actions that can be authorized and the ARN format.

API	ARN format
vpc:CreateVpc	acs:vpc:$regionid:$accountid:vpc/*
vpc:DeleteVpc	acs:vpc:$regionid:$accountid:vpc/$vpcid
vpc:DescribeVpcs	acs:vpc:$regionid:$accountid:vpc/*
vpc:ModifyVpcAttribute	acs:vpc:$regionid:$accountid:vpc/$vpcid
vpc:DescribeVRouters	acs:vpc:$regionid:$accountid:vrouter/* VRouterId specified: “vpc:Vpc” :” acs:vpc:$regionid:$accountid:vpc/$vpcid” VRouterId not specified: “vpc:Vpc” :” acs:vpc:$regionid:$accountid:vpc/*”
vpc:ModifyVRouterAttribute	acs:vpc:$regionid:$accountid:vrouter/$vrouterid
vpc:CreateVSwitch	acs:vpc:$regionid:$accountid:vswitch/* acs:vpc:$regionid:$accountid:vpc/$vpcid
vpc:DeleteVSwitch	acs:vpc:$regionid:$accountid:vswitch/$vswitchid
vpc:DescribeVSwitches	acs:vpc:$regionid:$accountid:vswitch/* “vpc:Vpc” :” acs:vpc:$regionid:$accountid:vpc/$vpcid”
vpc:ModifyVSwitchAttribute	acs:vpc:$regionid:$accountid:vswitch/$vswitchid
vpc:CreateRouteEntry	acs:vpc:$regionid:$accountid:routetable/$routetableid

vpc:DeleteRouteEntry	acs:vpc:$regionid:$accountid:routetable/$routetableid
vpc:DescribeRouteTables	acs:vpc:$regionid:$accountid:routetable/* The route table in VRouter: “vpc:VRouter”:” acs:vpc$regionid:$accountid:vrouter/$vrouterid”
vpc:CreateHaVip	acs:vpc:$regionid:$accountid:havip/* acs:vpc:$regionid:$accountid:vswitch/$vswitchid
vpc:DeleteHaVip	acs:vpc:$regionid:$accountid:havip/$havipid
vpc:AssociateHaVip	acs:vpc:$regionid:$accountid:havip/$havipid acs:ecs:$regionid:$accountid:instance/$instanceid
vpc:UnassociateHaVip	acs:vpc:$regionid:$accountid:havip/$havipid acs:ecs:$regionid:$accountid:instance/$instanceid
vpc:DescribeHaVips	acs:vpc:$regionid:$accountid:havip/*
vpc:AllocateEipAddress	acs:vpc:$regionid:$accountid:eip/*
vpc:AssociateEipAddres	The InstanceType is EcsInstance: acs:vpc:$regionid:$accountid:eip/$allocationid acs:ecs:$regionid:$accountid:instance/$instanceid The InstanceType is HaVip: acs:vpc:$regionid:$accountid:eip/$allocationid acs:vpc:$regionid:$accountid:havip/$havipid
vpc:DescribeEipAddresses	acs:vpc:$regionid:$accountid:eip/*
vpc:ModifyEipAddressAttribute	acs:vpc:$regionid:$accountid:eip/$allocationid
vpc:UnassociateEipAddress	The InstanceType is EcsInstance: acs:vpc:$regionid:$accountid:eip/$allocationid acs:ecs:$regionid:$accountid:instance/$instanceid The InstanceType is HaVip: acs:vpc:$regionid:$accountid:eip/$allocationid acs:vpc:$regionid:$accountid:havip/$havipid
vpc:ReleaseEipAddress	acs:vpc:$regionid:$accountid:eip/$allocationid
vpc:DescribeEipMonitorData	acs:vpc:$regionid:$accountid:eip/$allocationid
CreaeNatGateway	acs:vpc:$regionid:$accountid:natgateway/*
DescribeNatGateways	Query the specified NAT gateway: acs:vpc:$regionid:$accountid:natgateway/$natgatewayid Query the list of NAT gateways: acs:vpc:$regionid:$accountid:natgateway/*
ModifyNatGatewaySpec	acs:vpc:$regionid:$accountid:natgateway/$natgatewayid
ModifyNatGatewayAttribute	acs:vpc:$regionid:$accountid:natgateway/$nat

	gatewayid
DeleteNatGateway	acs:vpc:$regionid:$accountid:natgateway/$natgatewayid
CreateBandwidthPackage	acs:vpc:$regionid:$accountid:bandwidthpackage/*
DescribeBandwidthPackages	Query the specified bandwidth package: acs:vpc:$regionid:$accountid:bandwidthpackage/$bandwidthpackageid Query the list of bandwidth packages: acs:vpc:$regionid:$accountid:bandwidthpackage/*
ModifyBandwidthPackageSpec	acs:vpc:$regionid:$accountid:bandwidthpackage/$bandwidthpackageid
ModifyBandwidthPackageAttribute	acs:vpc:$regionid:$accountid:bandwidthpackage/$bandwidthpackageid
AddBandwidthPackageIps	acs:vpc:$regionid:$accountid:bandwidthpackage/$bandwidthpackageid
RemoveBandwidthPackageIps	acs:vpc:$regionid:$accountid:bandwidthpackage/$bandwidthpackageid
DeleteBandwidthPackage	acs:vpc:$regionid:$accountid:bandwidthpackage/$bandwidthpackageid
CreateForwardEntry	acs:vpc:$regionid:$accountid:forwardtable/$forwardtableid
DeleteForwardEntry	acs:vpc:$regionid:$accountid:forwardtable/$forwardtableid
ModifyForwardEntry	acs:vpc:$regionid:$accountid:forwardtable/$forwardtableid
DescribeForwardTableEntries	acs:vpc:$regionid:$accountid:forwardtable/$forwardtableid
CreateSnatEntry	acs:vpc:$regionid:$accountid:snattable/*
ModifySnatEntry	acs:vpc:$regionid:$accountid:snattable/$snattableid
DescribeSnatTableEntries	acs:vpc:$regionid:$accountid:snattable/$snattableid
DeleteSnatEntry	acs:vpc:$regionid:$accountid:snattable/$snattableid
vpc:CreateCustomerGateway	acs:vpc:$regionid:$accountid:customergateway/*
vpc:DeleteCustomerGateway	acs:vpc:$regionid:$accountid:customergateway/$customergatewayid
vpc:DescribeCustomerGateway	acs:vpc:$regionid:$accountid:customergateway/$customergatewayid
vpc:DescribeCustomerGateways	acs:vpc:$regionid:$accountid:customergatewa

	y/*
vpc:ModifyCustomerGatewayAttribute	acs:vpc:$regionid:$accountid:customergateway/$customergatewayid
vpc:CreateVpnConnection	acs:vpc:$regionid:$accountid:vpnconnection/*
vpc:DeleteVpnConnection	acs:vpc:$regionid:$accountid:vpnconnection/$vpnconnectionid
vpc:DescribeVpnConnection	acs:vpc:$regionid:$accountid:vpnconnection/$vpnconnectionid
vpc:DescribeVpnConnections	acs:vpc:$regionid:$accountid:vpnconnection/*
vpc:ModifyVpnConnectionAttribute	acs:vpc:$regionid:$accountid:vpnconnection/$vpnconnectionid
vpc:DownloadVpnConnectionConfig	acs:vpc:$regionid:$accountid:vpnconnection/$vpnconnectionid
vpc:DeleteVpnGateway	acs:vpc:$regionid:$accountid:vpngateway/$vpngatewayid
vpc:DescribeVpnGateway	acs:vpc:$regionid:$accountid:vpngateway/$vpngatewayid
vpc:DescribeVpnGateways	acs:vpc:$regionid:$accountid:vpngateway/*
vpc:ModifyVpnGatewayAttribute	acs:vpc:$regionid:$accountid:vpngateway/$vpngatewayid
vpc:CreateGlobalAccelerationInstance	acs:vpc:$regionid:$accountid:globalaccelerationinstance/*
vpc:AssociateGlobalAccelerationInstance	acs:vpc:$regionid:$accountid:globalaccelerationinstance/$globalaccelerationinstanceid acs:ecs:$regionid:$accountid:instance/$instanceid
vpc:UnassociateGlobalAccelerationInstance	acs:vpc:$regionid:$accountid:globalaccelerationinstance/$globalaccelerationinstanceid
vpc:ModifyGlobalAccerlationInstanceSpec	acs:vpc:$regionid:$accountid:globalaccelerationinstance/$globalaccelerationinstanceid
vpc:ModifyGlobalAccerlationInstanceAttributes	acs:vpc:$regionid:$accountid:globalaccelerationinstance/$globalaccelerationinstanceid
vpc:DeleteGlobalAccelerationInstance	acs:vpc:$regionid:$accountid:globalaccelerationinstance/$globalaccelerationinstanceid
vpc:DescribeGlobalAccelerationInstances	acs:vpc:$regionid:$accountid:globalaccelerationinstance/*
vpc:DescribeServerRelatedGlobalAccelerationInstances	acs:vpc:$regionid:$accountid:globalaccelerationinstance/* acs:ecs:$regionid:$accountid:instance/$instanceid

VPC

CreateVpc

Description

Create a VPC in the specified region.

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 and their subnets as the IP address range of the VPC. The standard IP address ranges include 10.0.0.0/8, 172.16.0.0/12, and 192.168.0.0/16. The default 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 a customer-side CIDR block is the subset of another, the one with the shorter netmask takes effect. Take 10.0.0.0/8 and 10.1.0.0/16 as an example, the customer-side CIDR block 10.0.0.0/8 takes effect.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: CreateVpc
RegionId	String	Yes	The ID of the region where the VPC is created. You can query the region ID by calling

			the DescribeRegions API.
CidrBlock	String	No	The IP address range of the VPC in the CIDR block form. You can use the following IP address ranges and their subnets: - 10.0.0.0/8 - 172.16.0.0/12 (Default) - 192.168.0.0/16
VpcName	String	No	The name of the VPC. The name must start with an English letter, but cannot start with http:// or https://. The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens.
Description	String	No	The description of the VPC. The description must start with English letters, but cannot start with http:// or https://. The description can contain from 2 to 256 characters.
ClientToken	String	No	A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be unique. It cannot exceed 64 ASCII characters.

			For more information, see How to ensure idempotence.
UserCidr	String	No	The customer-side CIDR block. Separate multiple CIDR blocks by commas. A maximum of three CIDR blocks are supported.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
VpcId	String	The ID of the VPC.
VRouterId	String	The ID of the VRouter.
RouteTableId	String	The ID of the route table.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=CreateVpc
&RegionID=cn-beijing
&<CommonParameters>
```

Response example

XML format

```
<CreateVpcResponse>
<RequestId>461D0C42-D5D1-4009-9B6A-B3D5888A19A9</RequestId>
<RouteTableId>vtb-25wm68mnh</RouteTableId>
<VRouterId>vrt-25bezkd03</VRouterId>
```

```
<VpcId>vpc-257gq642n</VpcId>
</CreateVpcResponse>
```

JSON format

```
{
"RequestId": "461D0C42-D5D1-4009-9B6A-B3D5888A19A9",
"RouteTableId": "vtb-25wm68mnh",
"VRouterId": "vrt-25bezkd03",
"VpcId": "vpc-257gq642n"
}
```

DeleteVpc

Description

Delete a VPC.

Note the following before deleting a VPC:

> Before deleting a VPC, you must release or remove all resources in the VPC, including VSwitches, cloud product instances, router interfaces, HaVip, and so on.
>
> Only VPCs in the available status can be deleted.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DeleteVpc
VpcId	String	Yes	The ID of the VPC.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DeleteVpc
&VpcId=vpc-25eq58pl3
&<CommonParameters>
```

Response example

XML format

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

JSON format

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

DescribeVpcs

Description

Query the created VPCs in a specified region.

Request parameters

Name	Type	Required	Description

Action	String	Yes	The action to perform. Valid value: DescribeVpcs
VpcId	String	No	The ID of the VPC. Up to 20 VPC IDs can be specified. Separate multiple VPC IDs by commas.
RegionId	String	Yes	The ID of the region where the VPC is located. You can query the region ID by calling DescribeRegions API.
IsDefault	Boolean	No	Whether to query the default VPC in the specified region. Valid value: - true (Default): Query all VPCs in the specified region. - false: Do not query the default VPC.
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 default value is 10.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
Vpcs	JSON string	The detailed information of queried VPCs. For more information, see VpcSetType.

TotalCount	String	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	Integer	The number of entries on the current page.

Error codes

For more information, see VPC API Error Center.

Examples

Request example

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

Response example

XML format

```
<DescribeVpcsResponse>
<RequestId> DA1DAE87-43FA-472F-98BB-4FDBAA4A688D</RequestId>
<Vpcs>
<Vpc>
<VpcId> vpc-257gq642n </VpcId>
<RegionId>cn-beijing</RegionId>
<VpcName></VpcName>
<Description></Description>
<VRouterId>vrt-25bezkd03</VRouterId>
<Status>Available</Status>
<UserCidrs></UserCidrs>
<CidrBlock>172.16.0.0/16</CidrBlock>
<VSwitchIds></VSwitchIds>
<CreationTime> 2014-10-29T13:30:19Z</CreationTime>
</Vpc>
</Vpcs>
</DescribeVpcsResponse>
```

JSON format

```
{
```

```
"PageNumber": 1,
"PageSize": 10,
"RequestId": "DA1DAE87-43FA-472F-98BB-4FDBAA4A688D",
"TotalCount": 1,
"Vpcs": {
"Vpc": {
"CidrBlock": "172.16.0.0/16",
"CreationTime": "2014-10-29T13:30:19Z",
"Description": "",
"RegionId": "cn-beijing",
"Status": "Available",
"UserCidrs": {
"UserCidr": []
},
"VRouterId": "vrt-25bezkd03",
"VSwitchIds": {
"VSwitchId": []
},
"VpcId": "vpc-257gq642n",
"VpcName": ""
}
}
}
```


ModifyVpcAttribute

Description

Modify the name and description of a VPC.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: ModifyVpcAttribute
VpcId	String	Yes	The ID of the VPC.
VpcName	String	No	The name of the VPC. The name must start with an English letter, but cannot start withhttp:// or https://.

			The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens.
Description	String	No	The description of the VPC. The description must start with English letters, but cannot start with http:// or https://. The description can contain from 2 to 256 characters.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyVpcAttribute
&VpcId=vpc-257gq642n
&VpcName=Vpc02
&<CommonParameters>
```

Response example

XML format

```
<ModifyVpcAttributeResponse>
<RequestId>5741F353-AD13-41A2-83C7-19E49BD9AE30</RequestId>
</ModifyVpcAttributeResponse>
```

JSON format

```
{
"RequestId": "5741F353-AD13-41A2-83C7-19E49BD9AE30"
}
```

VRouter

DescribeVRouters

Description

Query VRouters in a specified region.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeVRouters
VRouterId	String	No	The ID of the VRouter.
RegionId	String	Yes	The ID of the region where the VRouter is located. You can obtain the region ID by calling DescribeRegions API.
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 default value is 10.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
VRouters	JSON string	The detailed information of queried VRouters. For more information, see VRouterSetType.
TotalCount	Integer	The number of queries entries.
PageNumber	Integer	The current page number.
PageSize	Integer	The number of entries on the current page.

Error codes

See VPC API Error Center.

Examples

Request example

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

Response example

XML format

```
<DescribeVRoutersResponse>
<RequestId>C2C6EF61-53B7-4071-A87D-B42F1F17FA5A</RequestId>
<VRouters>
<VRouter>
<VpcId>vpc-257gq642n</VpcId>
<VRouterName></VRouterName>
<Description></Description>
<VRouterId>vrt-25bezkd03</VRouterId>
<RouteTableIds>
<RouteTableId>vtb-25wm68mnh</RouteTableId>
</RouteTableIds>
```

```
<CreationTime>2014-10-29T13:30:19Z</CreationTime>
</VRouter>
</VRouters>
</DescribeVRoutersResponse>
```

JSON format

```
{
"PageNumber": 1,
"PageSize": 10,
"RequestId": "C2C6EF61-53B7-4071-A87D-B42F1F17FA5A",
"TotalCount": 1,
"VRouters": {
"VRouter": [
{
"CreationTime": "2014-10-29T13:30:19Z",
"Description": "",
"RegionId": "cn-beijing",
"RouteTableIds": {
"RouteTableId": [
"vtb-25wm68mnh"
]
},
"VRouterId": "vrt-25bezkd03",
"VRouterName": "",
"VpcId": "vpc-257gq642n"
}
]
}
}
```

ModifyVRouterAttribute

Description

Modify the name and description of a VRouter.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: ModifyVRouterAttribu

			te
VRouterId	String	Yes	The ID of the VRouter.
VRouterName	String	No	The name of the VRouter. The name must start with an English letter, but cannot start withhttp:// or https://. The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens.
Description	String	No	The description of the VRouter. The description must start with English letters, but cannot start with http:// or https://. The description can contain from 2 to 256 characters.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyVRouterAttribute
&VRouterId=vrt-25bezkd03
&VRouterName=VRouter
```

```
&<CommonParameters>
```

Response example

XML format

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

JSON format

```
{
"RequestId": "E0AAA98E-8E3C-4C11-95F3-5E2B8AD51703"
}
```

VSwitch

CreateVSwitch

Description

Create a VSwitch in the specified VPC.

Note the following before creating a VSwitch:

- 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 CIDR block of the VSwitch cannot be modified after the VSwitch is created.

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.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: CreateVSwitch
ZoneId	String	Yes	The ID of the zone.
CidrBlock	String	Yes	The IP address range of the VSwitch in the CIDR block form. The IP address range must meet the following requirements: - The size of the subnet mask for the VSwitch can be /16 to /29. - The CIDR block of the VSwitch must belong to the CIDR block of the VPC. When the CIDR block of the VSwitch is the same as that of the VPC, the VPC can contain only one VSwitch.

			- 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 subset of the destination CIDR block.
VpcId	String	Yes	The ID of the VPC to which the VSwitch belongs.
VSwitchName	String	No	The name of the VSwitch. The name must start with an English letter, but cannot start withhttp:// or https://. The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens.
Description	String	No	The description of the VSwitch. The description must start with English letters, but cannot start with http:// or https://. The description can contain from 2 to 256 characters.
ClientToken	String	No	A client token used to guarantee the idempotence of requests. This parameter value is generated by the

			client and must be unique. It cannot exceed 64 ASCII characters. For more information, see How to ensure idempotence.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
VSwitchId	String	The ID of the VSwitch.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=CreateVSwitch
&CidrBlock=172.16.1.0/24
&VpcId=vpc-257gq642n
&ZoneId=cn-beijing-a
&<CommonParameters>
```

Response example

XML format

```
<CreateVSwitchResponse>
<RequestId>861E6630-AEC0-4B2D-B214-6CB5E44B7F04</RequestId>
<VSwitchId>vsw-25naue4gz</VSwitchId>
</CreateVSwitchResponse>
```

JSON format

```
{
"RequestId": "861E6630-AEC0-4B2D-B214-6CB5E44B7F04",
"VSwitchId": "vsw-25naue4gz"
}
```

DeleteVSwitch

Description

Delete a VSwitch.

Note the following before deleting a VSwitch:

- Only VSwitches in the available status can be deleted.
- Before deleting a VSwitch, you must release or remove all cloud product instances and HAVIP instances under the VSwitch.
- A VSwitch cannot be deleted when the VPC to which it belongs is creating or deleting a VSwitch or route entry.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DeleteVSwitch
VSwitchId	String	Yes	The ID of the VSwitch to delete.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DeleteVSwitch
&VSwitchId=vsw-25naue4gz
&<CommonParameters>
```

Response example

XML format

```
<DeleteVSwitchResponse>
<RequestId>AF083E3D-7E29-4B77-A937-1F129802D5F3</RequestId>
</DeleteVSwitchResponse>
```

JSON format

```
{
"RequestId": "AF083E3D-7E29-4B77-A937-1F129802D5F3"
}
```

DescribeVSwitches

Description

Query the created VSwitches.

Request parameters

Name	Type	Required	Description

Action	String	Yes	The action to perform. Valid value: DescribeVSwitches
RegionId	String	Yes	The ID of the region where the VSwitch is located. You can obtain the region ID by calling the DescribeRegions API.
VpcId	String	No	The ID of the VPC.
VSwitchId	String	No	The ID of the VSwitch. Up to 20 VSwitch IDs can be specified. Separate multiple VSwitch IDs by commas.
ZoneId	String	No	The ID of the zone.
IsDefault	Boolean	No	Whether to query the default VSwitch in the specified region. Valid value: - true (default value): Query all VSwitches in the specified region. - false: Do not query the default VSwitch.
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 default value is 10.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
VSwitches	JSON String	The detailed information of the VSwitches. For more information, see VSwitchSetType.
TotalCount	Integer	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	Integer	The number of entries on the current page.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DescribeVSwitches
&VpcId=vpc-25eq58pl3
&<CommonParameters>
```

Response example

XML format

```
<DescribeVSwitchesResponse>
<RequestId>9A572171-4E27-40D1-BD36-D26C9E71E29E</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></Description>
<VSwitchName></VSwitchName>
<CreationTime> 2014-10-29T15:21:02Z </CreationTime>
```

```
</VSwitch>
</VSwitches>
</DescribeVSwitchesResponse>
```

JSON format

```
{
"PageNumber": 1,
"PageSize": 10,
"RequestId": "9A572171-4E27-40D1-BD36-D26C9E71E29E",
"TotalCount": 1,
"VSwitches": {
"VSwitch": [
{
"AvailableIpAddressCount": 246,
"CidrBlock": "172.16.1.0/24",
"CreationTime": "2014-10-29T15:21:02Z",
"Description": "",
"Status": "Available",
"VSwitchId": "vsw-25b7pv15t",
"VSwitchName": "",
"VpcId": "vpc-257gq642n",
"ZoneId": "cn-beijing-a"
}
]
}
}
```

ModifyVSwitchAttribute

Description

Modify the name and description of a VSwitch.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: ModifyVSwitchAttribute
VSwitchId	String	Yes	The ID of the VSwitch.

VSwitchName	String	No	The name of the VSwitch. The name must start with an English letter, but cannot start withhttp:// or https://. The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens.
Description	String	No	The description of the VSwitch. The description must start with English letters, but cannot start with http:// or https://. The description can contain from 2 to 256 characters.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyVSwitchAttribute
&VSwitchId=vpc-257gq642n
&<CommonParameters>
```

Response example

XML format

```
<ModifyVSwitchAttributeResponse>
```

```
<RequestId>C0FD0EED-F90D-4479-803D-DD62335357E5</RequestId>
</ModifyVSwitchAttributeResponse>
```

JSON format

```
{
"RequestId":"C0FD0EED-F90D-4479-803D-DD62335357E5"
}
```

Route table

CreateRouteEntry

Description

Create a route entry for a VRouter or VBR.

Note the following before creating a route entry:

Up to 48 route entries can be created for a VPC or VBR.

Multiple route entries can point to the same next hop ID (NextHopId).

In the route table of a VPC, up to 5 route entries pointing to HAVIP can be created.

You can only add a route entry to an active VBR of an enabled leased line.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: CreateRouteEntry

RouteTableId	String	Yes	The ID of the route table.
DestinationCidrBlock	String	Yes	The destination CIDR block of the route entry, which must meet the following requirements: - The destination CIDR block cannot be 100.64.0.0/10 or any of its subnets. - Different route entries in a route table cannot use the same destination CIDR block. - If the destination CIDR block is an IP address, the netmask /32 is used by default.
NextHopType	String	No	The type of the next hop. Valid value: - Instance (Default): Route the traffic destined for the destination CIDR block to an ECS instance in the VPC. - HaVip: Route

			the traffic destined for the destination CIDR block to an HAVIP. - RouterInterface: Route the traffic destined for the destination CIDR block to a router interface. - VpnGateway: Route the traffic destined for the destination CIDR block to a VPN Gateway.
NextHopId	String	No	The ID of the next-hop instance. The next hop must be in the VPC or VBR to which the router table belongs. **Note**: This parameter is required if **NextHopList** is not specified.
NextHopList	JSON string	No	A list of next hops of the router entries. Specify this parameter when you create an Equal-cost multi-path routing (ECMP) route entry. The parameter must meet the following requirements:

			- Only the VRouter of VPC supports adding ECMP route entries. - At least two next hops must be specified, but cannot exceed four. - The next hops must be the route interfaces pointing to the connected VBRs. For more information, see NextHopListType. **Note**: This parameter is required if **NextHopId** is not specified.
ClientToken	String	No	A client token used to ensure the idempotence of requests. This parameter value is generated by the client and must be unique. It cannot exceed 64 ASCII characters. For more information, see How to ensure idempotence.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=CreateRouteEntry
&VpcId=vpc-257gq642n
&RouteTableId=vrt-5citwfp6a
&DestinationCidrBlock=0.0.0.0/0
&NextHopId=i-25skktcp4
&NextHopType=Instance
&<CommonParameters>
```

Response example

XML format

```
<CreateRouteEntryResponse>
<RequestId>12D086F6-8F31-4658-84C1-006DED011A85</RequestId>
</CreateRouteEntryResponse>
```

JSON format

```
{
"RequestId": "12D086F6-8F31-4658-84C1-006DED011A85"
}
```

DeleteRouteEntry

Description

Delete a router entry from a route table.

Note the following before deleting a router entry:

You can only delete a router entry in the available status.

You cannot delete a router entry of a VPC that is creating or deleting a VSwitch or route entry.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DeleteRouteEntry
RouteTableId	String	Yes	The ID of the route table to which the route entry belongs.
DestinationCidrBlock	String	Yes	The destination CIDR block of the route entry.
NextHopId	String	Yes	The ID of the next-hop instance of the route entry. **Note**: This parameter is required if **NextHopList** is not specified.
NextHopList	JSON string	No	A list of next hops of the router entries. Specify this parameter when you create an Equal-cost multi-path routing (ECMP) route entry. The parameter must meet the following requirements: - Only the VRouter of VPC supports adding ECMP route entries. - At least two next hops

			must be specified, but cannot exceed four. - The next hops must be the route interfaces pointing to the connected VBRs. **Note**: This parameter is required if **NextHopId** is not specified.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DeleteRouteEntry
&RouterTableId=vtb-25vtxl5ct
&DestinationCidrBlock=192.168.1.0/24
&NextHopId=i-25skktcp4
&<CommonParameters>
```

Response example

XML format

```
<DeleteRouteEntryResponse>
<RequestId>4357FA74-F9F3-46E7-8890-AA30EC4F8D4F </RequestId>
</DeleteRouteEntryResponse>
```

JSON format

```
{
"RequestId": "4357FA74-F9F3-46E7-8890-AA30EC4F8D4F"
}
```

DescribeRouteTables

Description

Query the custom route entries created in a route table.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeRouteTables
RouterType	String	No	The type of the router to which the route table belongs. - VRouter: Virtual Private Cloud - VBR: Virtual border router
RouterId	String	No	The ID of the VRouter or VBR to which the route table belongs.
VRouterId	String	Yes	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.
RouteTables	JSON string	The detailed information of the route table. For more information, see RouteTableSetType.
TotalCount	Integer	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	Integer	The number of entries on the current page.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DescribeRouteTables
&VRouterId=vrt-25u5f8u2q
&<CommonParameters>
```

Response example

XML format

```
<DescribeRouteTablesResponse>
<RequestId>913F8774-681A-4857-95D8-ACBAF044D453</RequestId>
<RouteTables>
<RouteTableId>routetable01</RouteTableId>
<RouteEntrys>
<RouteEntry>
<DestinationCidrBlock>192.168.10.1/32</DestinationCidrBlock>
<Type>Custom</Type>
<InstanceId> i-25skktcp4</InstanceId>
<Status>Available</Status>
<RouteTableId> vtb-25vtxl5ct</RouteTableId>
</RouteEntry>
<RouteEntry>
<DestinationCidrBlock>192.168.1.0/24</DestinationCidrBlock>
<InstanceId></InstanceId>
<RouteTableId>vtb-25vtxl5ct</RouteTableId>
<Status>Available</Status>
<Type>System</Type>
</RouteEntry>
<RouteEntry>
<DestinationCidrBlock>100.64.0.0/10</DestinationCidrBlock>
<InstanceId></InstanceId>
<RouteTableId>vtb-25vtxl5ct</RouteTableId>
<Status>Available</Status>
<Type>System</Type>
</RouteEntry>
<RouteEntry>
<DestinationCidrBlock>10.0.0.0/8</DestinationCidrBlock>
<InstanceId></InstanceId>
<RouteTableId>vtb-25vtxl5ct</RouteTableId>
<Status>Available</Status>
<Type>System</Type>
</RouteEntry>
</RouteEntrys>
<RouteTableId> vtb-25vtxl5ct</RouteTableId>
<RouteTableType>System</RouteTableType>
<VRouterId>vrt-25u5f8u2q</VRouterId>
<CreationTime> 2014-09-11T04:52:53Z </CreationTime>
</RouteTables>
</DescribeRouteTablesResponse>
```

JSON format

```
{
"PageNumber": 1,
"PageSize": 10,
```

```
"RequestId": "913F8774-681A-4857-95D8-ACBAF044D453",
"RouteTables": {
"RouteTable": [
{
"CreationTime": "2014-09-11T04:52:53Z",
"RouteEntrys": {
"RouteEntry": [
{
"DestinationCidrBlock": "192.168.10.1/32",
"InstanceId": "i-25skktcp4",
"RouteTableId": "vtb-25vtxl5ct",
"Status": "Available",
"Type": "Custom"
},
{
"DestinationCidrBlock": "192.168.1.0/24",
"InstanceId": "",
"RouteTableId": "vtb-25vtxl5ct",
"Status": "Available",
"Type": "System"
},
{
"DestinationCidrBlock": "100.64.0.0/10",
"InstanceId": "",
"RouteTableId": "vtb-25vtxl5ct",
"Status": "Available",
"Type": "System"
},
{
"DestinationCidrBlock": "10.0.0.0/8",
"InstanceId": "",
"RouteTableId": "vtb-25vtxl5ct",
"Status": "Available",
"Type": "System"
}
]
},
"RouteTableId": "vtb-25vtxl5ct",
"RouteTableType": "System",
"VRouterId": "vrt-25u5f8u2q"
}
]
},
"TotalCount": 1
}
```


EIP

AllocateEipAddress

Description

Create an EIP.

EIP supports ICMP, TCP, and UDP protocols, but does not support IGMP and SCTP protocols.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: AllocateEipAddress
RegionId	String	Yes	The region of the EIP. You can obtain the region ID by calling the DescribeRegions API.
Bandwidth	String	No	The peak bandwidth in Mbps of the EIP. The default value is 5.
InternetChargeType	String	No	EIP is charged by the traffic usage. Valid value: PayByTraffic
InstanceChargeType	String	No	The billing method of the EIP is Pay-As-You-Go. Valid value: PostPaid
ClientToken	String	No	The client token used to guarantee the idempotence of the request. This parameter value is generated by the client and must be unique. It cannot exceed 64 ASCII characters.

			For more information, see How to ensure idempotence.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
EipAddress	String	The allocated IP address.
AllocationId	String	The ID of the EIP.

Error codes

See VPC API Error Center.

Examples

Request example

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

Response example

XML format

```
<AllocateEipAddressResponse>
<RequestId>B6B9F518-60F8-4D81-9242-1207B356754D</RequestId>
<AllocationId>eip-25877c70x</AllocationId>
<EipAddress>123.56.0.206</EipAddress>
</AllocateEipAddressResponse>
```

JSON format

```
{
"AllocationId": "eip-25877c70x",
"EipAddress": "123.56.0.206",
```

"RequestId": "B6B9F518-60F8-4D81-9242-1207B356754D"
}

AssociateEipAddress

Description

Bind an EIP to a cloud product instance in the same region.

Note the following before binding an EIP:

Only the EIP in the available status can be bound.

An EIP can only be bound to one cloud resource.

You can bind an EIP to the following cloud resources:

ECS instances of the VPC network

Only the ECS instance in the running or stopped status can be bound.

NAT Gateway

If the NAT Gateway has associated with a bandwidth package, submit a ticket to bind an EIP to a NAT Gateway.

SLB instances of the VPC network

After binding, the SLB instance can forward requests from the Internet.

HAVIP

Only the HAVIP in the available or InUse status can be bound.

Each ECS instance, SLB instance and HAVIP can only be bound with one EIP. However, NAT Gateway can be bound with multiple EIPs.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: AssociateEipAddress
AllocationId	String	Yes	The ID of the EIP.
InstanceType	String	No	The cloud resource to bind. Valid value: - EcsInstance(Default): an ECS instance of the VPC network - SlbInstance: an SLB instance of the VPC network - Nat: NAT Gateway - HAVIP: HAVIP instance
InstanceId	String	Yes	The ID of the cloud resource to bind.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=AssociateEipAddress
&AllocationId=eip-25877c70x
&InstanceId=i-25skktcp4
&<CommonParameters>
```

Response example

XML format

```
<AssociateEipAddressResponse>
<RequestId>C0FD0EED-F90D-4479-803D-DD62335357E5</RequestId>
</AssociateEipAddressResponse>
```

JSON format

```
{
"RequestId": "C0FD0EED-F90D-4479-803D-DD62335357E5"
}
```

UnassociateEipAddress

Description

Unbind an EIP from a cloud resource.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: UnassociateEipAddress
AllocationId	String	Yes	The ID of the EIP.

InstanceType	String	No	The cloud resource to unbind. Valid value: - EcsInstance(Default): an ECS instance of the VPC network - SlbInstance: an SLB instance of the VPC network - Nat: NAT Gateway - HAVIP: HAVIP instance

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=UnassociateEipAddress
&AllocationId=eip-2578g5v5a
&InstanceId=i-25skktcp4
&<CommonParameters>
```

Response example

XML format

```
<UnassociateEipAddressResponse>
<RequestId>220F3179-5238-47F0-A0CA-1272AA2BC41F </RequestId>
</UnassociateEipAddressResponse>
```

JSONformat

```
{
"RequestId": "220F3179-5238-47F0-A0CA-1272AA2BC41F"
}
```

DescribeEipAddresses

Description

Query the created EIPs in a specified region.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeEipAddresses
RegionId	String	Yes	The region of the EIP.
Status	String	No	The status of the EIP. Valid value: - Associating: The EIP is being bound. - Unassociating : The EIP is being unbound. - InUse: The EIP has been bound to a cloud resource.

			- Available: The EIP is not bound to any cloud resources.
EipAddress	String	No	The IP address of the EIP.
AllocationId	String	No	The ID of the EIP.
AssociatedInstanceType	String	No	The cloud resource that the EIP is bound to. Valid value: - EcsInstance(Default): an ECS instance of the VPC network - SlbInstance: an SLB instance of the VPC network - Nat: NAT Gateway - HAVIP: HAVIP instance
AssociatedInstanceId	String	No	The ID of the cloud resource that the EIP is bound to. **Note**: The **AssociatedInstanceType** parameter must be specified when this parameter is specified.
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.
EipAddresses	JSON string	The detailed information of queried EIPs. For more information, see EipAddressSetType.
TotalCount	Integer	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	Integer	The number of entries on the current page.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DescribeEipAddresses
&RegionId=cn-hangzhou-1
&<CommonParameters>
```

Response example

XML format

```
<DescribeEipAddressesResponse>
<PageNumber>1</PageNumber>
<EipAddresses>
<EipAddress>
<ChargeType>PostPaid</ChargeType>
<AllocationTime>2018-01-15T11:17:30Z</AllocationTime>
<ResourceGroupId>rg-acfmxazb4ph6aiy</ResourceGroupId>
<InstanceId></InstanceId>
<Description></Description>
<IpAddress>59.110.xx.xx</IpAddress>
<AllocationId>eip-2ze88m67qx5zxxxxx</AllocationId>
```

```
<InternetChargeType>PayByTraffic</InternetChargeType>
<InstanceType></InstanceType>
<Name></Name>
<Status>Available</Status>
<BandwidthPackageId></BandwidthPackageId>
<InstanceRegionId></InstanceRegionId>
<BandwidthPackageType></BandwidthPackageType>
<RegionId>cn-beijing</RegionId>
<OperationLocks></OperationLocks>
<ExpiredTime></ExpiredTime>
<AvailableRegions>
<AvailableRegion>cn-beijing</AvailableRegion>
</AvailableRegions>
<Bandwidth>1</Bandwidth>
</EipAddress>
</EipAddresses>
<TotalCount>1</TotalCount>
<PageSize>10</PageSize>
<RequestId>7EEF2D6B-D207-4197-AE37-01279C888757</RequestId>
</DescribeEipAddressesResponse>
```

JSON format

```
{
"PageNumber": 1,
"EipAddresses": {
"EipAddress": [
{
"ChargeType": "PostPaid",
"AllocationTime": "2018-01-15T11:17:30Z",
"ResourceGroupId": "rg-acfmxazb4ph6aiy",
"InstanceId": "",
"Description": "",
"IpAddress": "59.110.xx.xx",
"AllocationId": "eip-2ze88m67qx5zxxxxx",
"InternetChargeType": "PayByTraffic",
"InstanceType": "",
"Name": "",
"Status": "Available",
"BandwidthPackageId": "",
"InstanceRegionId": "",
"BandwidthPackageType": "",
"RegionId": "cn-beijing",
"OperationLocks": {
"LockReason": []
},
"ExpiredTime": "",
"AvailableRegions": {
"AvailableRegion": [
"cn-beijing"
]
},
"Bandwidth": "1"
}
```

```
]
},
"TotalCount": 1,
"PageSize": 10,
"RequestId": "7EEF2D6B-D207-4197-AE37-01279C888757"
}
```


ModifyEipAddressAttribute

Description

Modify the name, description, and peak bandwidth of the specified EIP.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: ModifyEipAddressAttribute
AllocationId	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.
Description	String	No	The description of the EIP.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyEipAddressAttribute
&AllocationId=eip-25877c70x
&Bandwidth=1
&<CommonParameters>
```

Response example

XML format

```
<ModifyEipAddressAttributeResponse>
<RequestId>2C63EA73-A1E7-4C46-B8BC-E7C2E543E5E8</RequestId>
</ModifyEipAddressAttributeResponse>
```

JSON format

```
{
"RequestId": "2C63EA73-A1E7-4C46-B8BC-E7C2E543E5E8"
}
```

ReleaseEipAddress

Description

Release the specified EIP.

Note: Make sure that the EIP is not bound to any product before releasing the EIP.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value:

			ReleaseEipAddress
AllocationId	String	Yes	The ID of the EIP.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ReleaseEipAddress
&AllocationId=eip-25877c70x
&<CommonParameters>
```

Response example

XML format

```
<ReleaseEipAddressResponse>
<RequestId>748C38F6-9A3D-482E-83FB-DB6C39C68AEA</RequestId>
</ReleaseEipAddressResponse>
```

JSON format

```
{
"RequestId": "748C38F6-9A3D-482E-83FB-DB6C39C68AEA"
}
```

DescribePublicIpAddress

Note: This API is currently only available to Alibaba Cloud partners. Contact your Alibaba Cloud sales manager or business manager to add your account to the whitelist before using this API.

Description

Query the public IP address range in a specified region.

Request parameters

Name	Name	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribePublicIpAddress
RegionId	String	Yes	The ID of the region to query.
PageNumber	Integer	No	The number of pages to return. The default value is 1.
PageSize	Integer	No	The number of rows per page. The default value is 10.

Response parameters

Name	Type	Description
PublicIpAddress	String	The public IP address range of the specified region.
TotalCount	String	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	Integer	The number of entries on the current page.

Error codes

Error code	Error message	Http status code	Description
Forbidden.RegionNotFound	Specified region is not found during access authentication.	404	The specified region does not exist. See Regions and zones to find the region ID of each region.
Forbidden.	User not authorized to operate on the specified resource.	403	You are not authorized to operate on the specified resource. See API authorization on how to authorize the API.

Examples

Request example

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

Response example

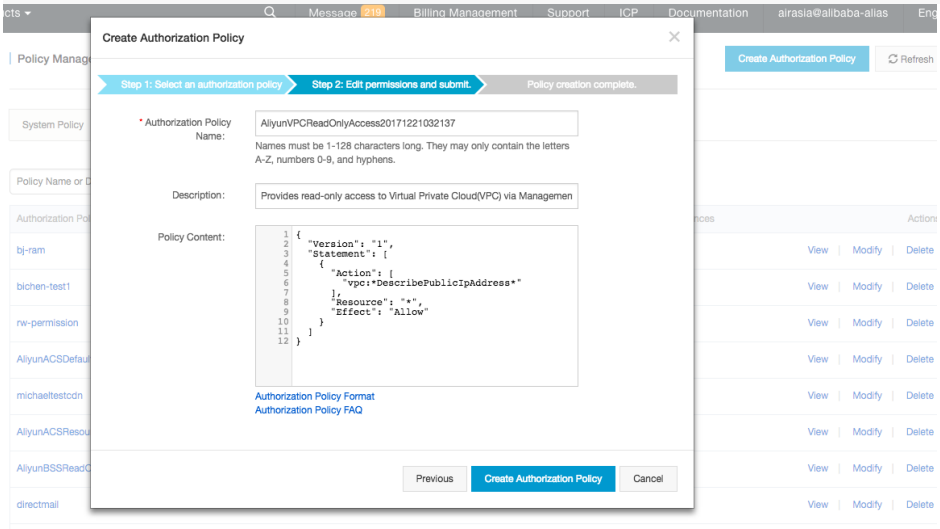
```
{
  “RequestId” :”  365F4154-92F6-4AE4-92F8-7FF34B540710” ,
  “Code” :200,
  “Success” :” true/false” ,
  “PublicIpAddress” :[
  “110.11.1.0/24”
],
  “RegionId” :” cn-beijing” ,
  “PageNumber” :1,
  “PageSize” :100,
  “TotalCount” :1000
}
```

API authorization

When calling this API, make sure that you are authorized to operate this resource.

The authorization can be done either by using the API or on the RAM console. The following policy must be added. For more information, see Authorization policies.

```
{
"Version": "1",
"Statement": [
{
"Action": [
"vpc:DescribePublicIpAddress*",
],
"Resource": "*",
"Effect": "Allow"
}
]
}
```



Physical Connection

CreatePhysicalConnection

Description

Create a physical connection. After the physical connection changes to the **Initial** status, contact the carrier for construction.

Note the following before creating for 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 where the physical connection is located. 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. The selected access point must exist and be available.
CircuitCode	String	No	The circuit code provided by the carrier for the physical connection.
LineOperator	String	Yes	The carrier that provides the physical connection. Valid value: - CT: China Telecom - CU: China Unicom - CM: China Mobile - CO: Other (China) - Equinix: Equinix

			- Other: Other (outside China)
PeerLocation	String	Yes	The geographic location of the local data center. The peer location can contain from 2 to 256 characters, but cannot start with http:// or https://.
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: - 100Base-T: 100-MB electrical port - 1000Base-T: 1-GB electrical port - 1000Base-LX: 1-GB single-mode optical port (10 km) - 10GBase-T: 10-GB electrical port - 10GBase-LR: 10-GB single-mode optical port (10 km)
RedundantPhysicalConnectionId	String	No	The ID of the other physical connection used as 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 must start with an English letter, but cannot start withhttp:// or https://. The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens.
Description	String	No	The description of the physical connection. The description must start with English letters, but cannot start with http:// or https://. The description can contain from 2 to 256 characters.
ClientToken	String	No	A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be unique. It cannot exceed 64 ASCII characters. For more information, see How to ensure idempotence.

Response parameters

Name	Type	Description
RequestId	String	The ID pf the request.
PhysicalConnectionId	String	The ID of the physical connection.

Error codes

See VPC API Error Center.

Examples

Request example

```
http://vpc.aliyuncs.com/?Action=CreatePhysicalConnection
&RegionId=cn-beijing
&AccessPointId=ap-cn-beijing-ft-A
&LineOperator=CT
&PeerLocation=No.XX, XX Street, Beijing City
&<CommonParameters>
```

Response example

JSON format

```
{
"PhysicalConnectionId": "pc-**************",
"RequestId": "8A6A5EC5-6F6C-4906-9689-56ACE58A13E0"
}
```

CancelPhysicalConnection

Description

Cancel physical connection access before the physical connection is enabled.

You can only cancel physical connections that are not enabled, including physical connections in the Initial, Approved, Allocated, or Confirmed status.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform.

			Valid value: CancelPhysicalConnection
RegionId	String	Yes	The region where the physical connection is located. You can obtain the region ID by calling the DescribeRegions API.
PhysicalConnectionId	String	Yes	The ID of the physical connection.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
http://vpc.aliyuncs.com/?Action=CancelPhysicalConnection
&PhysicalConnectionId=pc-2zeoaxkq3xxxxx
&RegionId=cn-beijing
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId": "BE36E95A-F83E-4127-A29E-F2F35D4C999A"
}
```

DescribePhysicalConnections

Description

Query the created physical connections in the specified region.

The relationship between the values of a filter is “or”. The physical connection is returned as long as one filter is met.

The relationship between each filter is “and”. The physical connection is returned only when all the filters are met.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribePhysicalConnections
RegionId	String	Yes	The region where the physical connection is located. You can obtain the region ID by calling the DescribeRegions API.
Filter.n.Key	String	No	Filter keys. Valid value for n is [1,5], up to five filters are supported. The following are available filter keys: - PhysicalConnectionId: The ID of the physical connection. - AccessPointId: The ID of the access

			point. - Type: The type of the physical connection, the valid value is VPC. - LineOperator: The network operator of the physical connection. - Status: The status of the physical connection. - Spec: The specification of the physical connection, such as 1 Gbps. - Name: The name of the physical connection.
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.
PhysicalConnectionSet	JSON string	The detailed information of queried physical connections. For more information, see PhysicalConnectionSetType.
TotalCount	Integer	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	Integer	The number of entries on the current page.

Error codes

See VPC API Error Center.

Examples

Request example

```
http://vpc.aliyuncs.com/?Action=DescribePhysicalConnections
&RegionId=cn-beijing
&<CommonParameters>
```

Response example

JSON format

```
{
"PageNumber": 1,
"TotalCount": 1,
"PageSize": 10,
"RequestId": "7C07B0AF-4FC0-4BB2-9667-F75812824BCD",
"PhysicalConnectionSet": {
"PhysicalConnectionType": [
{
"Type": "VPC",
"PhysicalConnectionId": "pc-2zeoaxkq3jot5p71qcnuy",
"PeerLocation": "XXX Street-XX District-Beijing City",
"CreationTime": "2017-12-13T02:28:42Z",
"Name": "TEST",
"Status": "Enabled",
"AdLocation": "XXU in XX network cabinet in XXX data center--XX--Beijing City",
"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
}
]
}
}
```


ModifyPhysicalConnectionAttribute

Description

Modify the attributes of a physical connection.

Note the following before modifying the attributes of a physical connection:

> If you want to modify the specification or the redundant physical connection, the physical connection must be in the **Initial** or **Rejected** status.
>
> You cannot modify the attributes of the physical connection that is in the **Canceled**, **Allocating**, **AllocationFailed**, or **Terminated** status.
>
> After modification, the physical connection in the **Rejected** status will change to the **Initial** status.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: CreatePhysicalConnection
RegionId	String	Yes	The region where the physical connection is located. You can obtain the region ID by calling

			the DescribeRegions API.
PhysicalConnectionId	String	Yes	The ID of the physical connection.
LineOperator	String	No	The network operator of the physical connection. Valid value: - CT: China Telecom - CU: China Unicom - CM: China Mobile - CO: Other (China) - Equinix: Equinix - Other: Other (outside China)
Bandwidth	String	No	The bandwidth in Mbps of the physical connection. The default value is 100 and the valid value is [2, 10240].
PeerLocation	String	No	The geographic location of the local data center.
PortType	String	No	The port type of the physical connection. Valid value: - 100Base-T: 100-MB electrical port - 1000Base-T: 1-GB electrical port - 1000Base-LX: 1-GB single-mode optical port (10 km)

			- 10GBase-T: 10-GB electrical port - 10GBase-LR: 10-GB single-mode optical port (10 km)
RedundantPhysicalConnectionId	String	No	The ID of the physical connection used as the redundant physical connection. The redundant physical connection must be in the allocated, confirmed, or enabled status.
CircuitCode	String	No	The circuit code provided by the network operator for the physical connection.
Name	String	No	The name of the physical connection. The name must start with an English letter, but cannot start withhttp:// or https://. The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens.
Description	String	No	The description of the physical connection. The description must start with English letters, but cannot start with http:// or https://. The description can contain from 2 to 256 characters.
ClientToken	String	No	A client token used to guarantee the

			idempotence of requests. This parameter value is generated by the client and must be unique. It cannot exceed 64 ASCII characters. For more information, see How to ensure idempotence.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
http://vpc.aliyuncs.com/?Action=ModifyPhysicalConnectionAttribute
&PhysicalConnectionId=pc-2zeoaxkq3xxxxx
&RegionId=cn-beijing
&Name=test3
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId": "8591E598-8519-48A9-9E08-72551537C199"
}
```

TerminatePhysicalConnection

Description

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 where the physical connection is located. You can obtain the region ID by calling the DescribeRegions API.
PhysicalConnectionId	String	Yes	The ID of the physical connection.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
http://vpc.aliyuncs.com/?Action=TerminatePhysicalConnection
&PhysicalConnectionId=pc-2zeoaxkq3xxxxx
&RegionId=cn-beijing
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId": "513E0A50-4F2D-4CBE-BF35-40559DF65D79"
}
```

EnablePhysicalConnection

Description

Enable the physical connection in the **Confirmed** status.

After enabled, the physical connection changes to the **Enabled** status.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: EnablePhysicalConnection

RegionId	String	Yes	The region where the physical connection is located. You can obtain the region ID by calling the DescribeRegions API.
PhysicalConnectionId	String	Yes	The ID of the physical connection.
ClientToken	String	Yes	A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be unique. It cannot exceed 64 ASCII characters. For more information, see How to ensure idempotence.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
http://vpc.aliyuncs.com/?Action=EnablePhysicalConnection
&PhysicalConnectionId=pc-2zeoaxkq3xxxxx
&RegionId=cn-beijing
&ClientToken=3fGlrDSu8CLXlg8f
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId": "12D57AA8-03E8-4926-A00E-77A54DD75247"
}
```

DeletePhysicalConnection

Description

Delete a physical connection.

You can only delete a physical connection in the **Rejected**, **Canceled**, **AllocationFailed**, or **Terminated** status.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DeletePhysicalConnection
RegionId	String	Yes	The region where the physical connection is located. You can obtain the region ID by calling the DescribeRegions API.
PhysicalConnectionId	String	Yes	The ID of the physical connection.

Response parameters

Name	Type	Description

RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
http://vpc.aliyuncs.com/?Action=DeletePhysicalConnection
&PhysicalConnectionId=pc-2zeoaxkq3xxxxx
&RegionId=cn-beijing
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId": "88FD7826-6186-4C4C-9733-3892E02496EC"
}
```

Router Interface

CreateRouterInterface

Description

Create a router interface.

Note the following before creating a router interface:

Up to one pair of interconnected router interfaces can be created between two VRouters.

Up to five router interfaces can be created for a VRouter.

If there is a delinquent router interface in your account, you can no longer create router interfaces.

The router interface created for a Virtual Border Router (VBR) must act as the connection initiator.

If you want to create a router interface for a VBR, the VBR must be in the **Active** status.

Note: A router interface created by using the API only is billed on a daily basis. If you want to buy a router interface charged on a yearly or monthly basis, create it on the console. For more information, see Create a router interface.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: CreateRouterInterface
RegionId	String	Yes	The region of the router interface. You can obtain the region ID by calling the DescribeRegions API.
RouterType	String	Yes	The type of the router that the router interface is created for. Valid value: - VRouter: Create a router interface for a VRouter of a VPC. - VBR: Create a router interface for a VBR.

AccessPointId	String	No	The ID of the access point used by the VBR. This parameter is required when the **RouterType** parameter is set to VBR.
RouterId	String	Yes	The ID of the VRouter or VBR.
Role	String	Yes	The role of the router interface. Valid value: - InitiatingSide: Connection initiator. - AcceptingSide: Connection receiver. The value of this parameter must be InitiatingSide if the **RouterType** parameter is set to VBR.
Spec	String	Yes	The specification of the router interface.The following are available specifications and the corresponding bandwidth: - Mini.2: 2 Mbps - Mini.5: 5 Mbps - Small.1: 10 Mbps - Small.2: 20 Mbps - Small.5: 50 Mbps - Middle.1: 100 Mbps - Middle.2: 200 Mbps - Middle.5: 500 Mbps - Large.1: 1000 Mbps

			- Large.2: 2000 Mbps - Large.5: 5000 Mbps - Xlarge.1: 10000 Mbps
OppositeRegionId	String	Yes	The region of the peer router interface.
OppositeRouterType	String	No	The type of the router that the peer router interface associates with. Valid value: - VRouter(Default): The peer router interface is associated with a VRouter of a VPC. - VBR: The peer router interface is associated with VBR.
OppositeRouterId	String	No	The ID of the peer VRouter or VBR to connect.
OppositeInterfaceId	String	No	The ID of the peer router interface.
OppositeAccessPointId	String	No	The ID of the access point of the peer router interface. This parameter is required when the value of the **OppositeRouterType** parameter is set to VBR. **Note**: This parameter cannot be modified after the router interface is created.
OppositeInterfaceOwnerId	String	No	The account ID of the owner of the peer router interface.
Name	String	No	The name of the router interface.

			The name must start with an English letter, but cannot start withhttp:// or https://. The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens.
Description	String	No	The description of the router interface. The description must start with English letters, but cannot start with http:// or https://. The description can contain from 2 to 256 characters.
HealthCheckSourceIp	String	No	The source IP address used to perform health check on the physical connection. It must be unused IP address of the VPC where local router interface is located. **Note**: This parameter works only when creating route interfaces to establish a physical connection.
HealthCheckTargetIp	String	No	The destination IP address used to perform health check on the physical connection. **Note**: This parameter is required when the **HealthCheckSourceIp** parameter is specified.
InstanceChargeType	String	No	The billing method of the router interface. Valid value: - PrePaid: Subscription - PostPaid(Default): Pay-As-

			You-Go If you select the Subscription billing method, find the order ID in the response and go to the Order Center to complete the payment.
PricingCycle	String	No	The billing cycle. Valid value: - Month: Billing by month - Year: Billing by year **Note**: This parameter is required if you select the **Subscription** billing mode.
Period	String	No	The billing period. Valid value: - If you select billing cycle is Month, the valid value is [1, 9]. - If you select billing cycle is Year, the valid value is [1, 3] **Note**: This parameter is required if you select the **Subscription** billing mode.
AutoPay	String	No	Whether to pay the order automatically. Valid value: - true: Automatically pay the order. - false(Default): Do not enable

			automatic pay. You must go to the Order Center to complete the payment after the order is generated.
ClientToken	String	No	A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be unique. It cannot exceed 64 ASCII characters. For more information, see How to ensure idempotence.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
RouterInterfaceId	String	The ID of the router interface instance.
OrderId	String	The order number. **Note**: This parameter is returned only when you select the **Subscription** billing mode.

Error codes

See VPC API Error Center.

Examples

Request example

```
http://vpc.aliyuncs.com/?Action=CreateRouterInterface
&Role=InitiatingSide
&OppositeRegionId=cn-hangzhou
&Spec=Middle.1
&RouterType=VRouter
&RouterId=vpc-xxxx
&RegionId=cn-beijing
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId": "C4C873E5-8B92-4CD8-9163-66703A808E46",
"RouterInterfaceId": "ri-2ze7fbuohmxxxxxx"
}
```

DescribeRouterInterfaces

Description

Queries the list of router interfaces.

Currently supported filters include RouterInterfaceId, RouterId, RouterType, RouterInterfaceOwnerId, OppositeInterfaceId, OppositeRouterType, OppositeRouterId, OppositeInterfaceOwnerId, Status, and Name.

The relationship between the values of a filter is “or”. A VBR is returned as long as one filter is met.

The relationship between each filter is “and”. A VBR is returned only when all the filters are met.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeRouterInterfaces
RegionId	String	Yes	The region where the

			router interface is located. You can obtain the region ID by calling the DescribeRegions API.
Filter.n.Key	String	No	Filter keys. Valid value for n is [1, 5]. Up to five filters are supported. The following are available filter keys: - RouterInterfaceId: The ID of the router interface. - RouterId: The ID of the VRouter or VBR. - RouterType: The type of the router associated with the router interface. - RouterInterfaceOwnerId: The owner ID of the router interface. - OppositeInterfaceId: The ID of the peer router interface. - OppositeRouterType: The type of the router associated with the peer router

			interface. - OppositeRouterId: The ID of the peer router. - OppositeInterfaceOwnerId: The owner ID of the peer router interface. - Status: The status of the router interface. - Name: The name of the router interface.
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 entries 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	Integer	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	Integer	The number of entries on the current page.
Instances	JSON string	The detailed information of the queried router interfaces.

		For more information, see RouterInterfaceSetType.

Error codes

See VPC API Error Center.

Examples

Request example

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

Response example

```
{
"PageNumber": 1,
"TotalCount": 1,
"PageSize": 10,
"RequestId": "3F12D2E8-0B95-46F3-BE89-C2D69BF134D0",
"RouterInterfaceSet": {
"RouterInterfaceType": [
{
"ChargeType": "AfterPay",
"OppositeInterfaceBusinessStatus": "Normal",
"RouterInterfaceId": "ri-2ze7fbuohm7pcxxxxx",
"OppositeInterfaceStatus": "Active",
"Spec": "Negative",
"OppositeAccessPointId": "ap-cn-beijing-dx-A",
"OppositeInterfaceOwnerId": "12315790855xxxxx",
"OppositeInterfaceSpec": "Large.1",
"CreationTime": "2018-03-01T07:19:31Z",
"RouterType": "VRouter",
"Status": "Active",
"OppositeRouterType": "VBR",
"OppositeRouterId": "vbr-2zee2e2cwetx4xxxxxx",
"OppositeInterfaceId": "ri-2ze07ad6sgzixxxxx",
"VpcInstanceId": "vpc-2zefsil0x93dguxxxxx",
"RouterId": "vrt-2zepuy8qbrq6xxxxx",
"ConnectedTime": "2018-03-01T07:19:32Z",
"OppositeRegionId": "cn-beijing",
"BusinessStatus": "Normal",
"Role": "AcceptingSide",
"EndTime": "2999-09-08T16:00:00Z"
}
```

```
]
}
}
```

ConnectRouterInterface

Description

The initiator router interface initiates a connection to the receiver router interface.

After this API is called, the router interface changes to the **Connecting** status. When the connection is established, the router interface changes to the **Active** status and the two VPCs are interconnected through the intranet.

Note the following before initiating a connection:

Only an initiator router interface in the **Idle** status can initiate a connection.

Up to one pair of interconnected router interfaces can be created between any two routers.

If there is a delinquent router interface under the account, you cannot initiate a connection.

Request parameters

Name	Type	Required	Description
Action	string	Yes	The action to perform. Valid value: ConnectRouterInterface
RegionId	string	Yes	The region where the router interface is located. You can obtain the region ID by calling the DescribeRegions API.
RouterInterfaceId	string	Yes	The ID of initiator router interface.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ConnectRouterInterface
&RegionId=cn-hangzhou
&RouterInterfaceId=ri-sf3rxsf
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId":"4EC47282-1B74-4534-BD0E-403F3EE64CAF"
}
```

ActivateRouterInterface

Description

Activate a router interface in the **Inactive** status.

After the API is called, the router interface changes to the **Activating** status. When the activation completes, the router interface changes to the **Active** status.

Note: A delinquent router interface cannot be activated.

Request parameters

Name	Type	Required	Description
Action	string	Yes	The action to perform. Valid value: ActivateRouterInterface
RegionId	string	Yes	The region where the router interface is located. You can obtain the region ID by calling the DescribeRegions API.
RouterInterfaceId	string	Yes	The ID of the router interface.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ActivateRouterInterface
&RouterInterfaceId=ri-257gq642n
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId":"079874CD-AEC1-43E6-AC03-ADD96B6E4907"
}
```


DeactivateRouterInterface

Description

Deactivate a router interface.

After the API is called, the router interface changes to the **Deactivating** status. When the deactivation completes, the router interface changes to the **Inactive** status.

> **Note**: A delinquent router interface cannot be deactivated.

Request parameters

Name	Type	Required	Description
Action	string	Yes	The action to perform. Valid value: DeactivateRouterInterface
RegionId	string	Yes	The region where the router interface is located. You can obtain the region ID by calling the DescribeRegions API.
RouterInterfaceId	string	Yes	The ID of the router interface.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DeactivateRouterInterface
&RegionId=cn-hangzhou
&RouterInterfaceId=ri-2ze7fbuohm7pc3yxxxxx
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId":"BE7EB53A-99AB-4DA8-AEDE-75FA90D046A6"
}
```

ModifyRouterInterfaceSpec

Description

Modify the specification of a router interface.

After calling this API, go to the Order Center to complete the payment.

Note: Cannot modify the specification for the router interface in the delinquent status.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid

			value：ModifyRouterInterfaceSpec
RegionId	String	Yes	The region where the router interface is located. You can obtain the region ID by calling the DescribeRegions API.
RouterInterfaceId	String	Yes	The ID of the router interface.
Spec	String	Yes	The specification of the router interface.The following are available specifications and the corresponding bandwidth: - Mini.2: 2 Mbps - Mini.5: 5 Mbps - Small.1: 10 Mbps - Small.2: 20 Mbps - Small.5: 50 Mbps - Middle.1: 100 Mbps - Middle.2: 200 Mbps - Middle.5: 500 Mbps - Large.1: 1000 Mbps - Large.2: 2000 Mbps - Large.5: 5000 Mbps - Xlarge.1: 10000 Mbps
ClientToken	String	No	A client token used to guarantee the idempotence of requests. This parameter value is generated by the client

			and must be unique. It cannot exceed 64 ASCII characters. For more information, see How to ensure idempotence.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
Spec	String	The ID of the router interface.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyRouterInterfaceSpec
&RegionId=cn-hangzhou
&Spec=Middle.2
&RouterInterfaceId=ri-2ze7fbuohm7pcxxxxxx
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId":"9580321B-80EE-487E-A2C0-1E432ACECC65",
"Spec":"Middle.2"
}
```

ModifyRouterInterfaceAttribute

Description

Modify the configurations of a router interface.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: ModifyRouterInterfaceAttribute
RegionId	String	Yes	The region where the router interface is located. You can obtain the region ID by calling the DescribeRegions API.
RouterInterfaceId	String	Yes	The ID of the router interface.
DeleteHealthCheckIp	Boolean	No	Whether to delete the health check IP configured on the router interface. Valid value: - true: Delete the health check IP. - false(Default): Do not delete the health check IP.
Name	String	No	The name of the router interface. The name must start with an English letter, but cannot start withhttp:// or https://. The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens.

Description	String	No	The description of the router interface. The description must start with English letters, but cannot start with http:// or https://. The description can contain from 2 to 256 characters.
OppositeInterfaceId	String	No	The ID of the peer router interface.
OppositeRouterId	String	No	The ID of the peer VRouter or VBR to connect.
OppositeInterfaceOwnerId	String	No	The account ID of the owner of the peer router interface.
HealthCheckSourceIp	String	No	The source IP address used to perform health check on the physical connection. It must be unused IP address of the VPC where local router interface is located. **Note**: This parameter works only when creating route interfaces to establish a physical connection.
HealthCheckTargetIp	String	No	The destination IP address used to perform health check on the physical connection. **Note**: This parameter is required when the **HealthCheckSourceIp** parameter is specified.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyRouterInterfaceAttribute
&Name=test
&RouterInterfaceId=ri-2ze7fbuohm7pc3ybei8nv
&RegionId=cn-hangzhou
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId":"4EC47282-1B74-4534-BD0E-403F3EE64CAF"
}
```

DeleteRouterInterface

Description

Deletes a router interface.

Note the following before deleting a router interface:

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

Request parameters

Name	Type	Required	Description

Action	string	Yes	The action to perform. Valid value: DeleteRouterInterface
RegionId	string	Yes	The region of the router interface. You can obtain the region ID by calling the DescribeRegions API.
RouterInterfaceId	string	Yes	The ID of the router interface.
ClientToken	String	No	A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be unique. It cannot exceed 64 ASCII characters. For more information, see How to ensure idempotence.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DeleteRouterInterface
&RegionId=cn-hangzhou
&RouterInterfaceId=ri-Bsfasf
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId":"4EC47282-1B74-4534-BD0E-403F3EE64CAF"
}
```

VBR

CreateVirtualBorderRouter

Description

Create a Virtual Border Router (VBR).

Each leased line (physical connection) can associate with two VBRs, one belongs to your own account and the other one belongs to another account:

> If you create a VBR using your account, the status of the VBR is **Enabled** after the API is called.
>
> If you create a VBR using another account, the status of the VBR is **Unconfirmed** after the API is called.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: CreateVirtualBorderRouter
RegionId	String	Yes	The region of the

			physical connection. You can obtain the region ID by calling the DescribeRegions API.
PhysicalConnectionId	String	Yes	The ID of the physical connection.
VbrOwnerId	String	No	The account ID of the VBR. The default value is account ID of the user who is calling the API.
VlanId	Integer	Yes	The VLAN ID of the VBR. Valid value: [1, 2999]. The VLAN IDs of two VBRs of the same physical connection must be different. **Note**: Only the owner of the physical connection can specify this parameter.
CircuitCode	String	No	The circuit code provided by the network operator for the physical connection. **Note**: Only the owner of the physical connection can specify this parameter.
LocalGatewayIp	String	No	The Alibaba Cloud-Side IP address used as the gateway to connect to the local IDC.
PeerGatewayIp	String	No	The customer-side IP address used as the gateway to connect to VPC.
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. The name must start with an English letter, but cannot start withhttp:// or https://. The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens.
Description	String	No	The description of the VBR. The description must start with English letters, but cannot start with http:// or https://. The description can contain from 2 to 256 characters.
ClientToken	String	Yes	A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be unique. It cannot exceed 64 ASCII characters. For more information, see How to ensure idempotence.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
VbrId	String	The ID of the VBR.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=CreateVirtualBorderRouter
&PhysicalConnectionId=pc-2zeoaxkq3jotxxxxxxxx
&RegionId=cn-hangzhou
&VlanId=10
&ClientToken=test
```

Response example

JSON format

```
{
"RequestId": "91C37558-4F94-4033-B41E-368E2983D53E",
"VbrId": "vbr-2zecmmvg5gvu8i4telkhw"
}
```

DeleteVirtualBorderRouter

Description

Delete a VBR.

Note the following before deleting a VBR:

- 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 owner of a physical connection wants to delete a VBR under another account, the VBR must be in the Unconfirmed status.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value:DeleteVirtualBorderRouter
RegionId	String	Yes	The region of the VBR. You can query the region ID in Regions and zones or by calling DescribeRegions.
VbrId	String	Yes	The ID of the VBR.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

For more information, see VPC API Error Center.

Examples

Request example

```
http://vpc.aliyuncs.com/?Action=DeleteVirtualBorderRouter
&VbrId=pc-2zeoaxkq3xxxxx
&RegionId=cn-beijing
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId": "FDDB17BA-ECD4-4889-A1F2-140F1F98EA76"
}
```

DescribeVirtualBorderRouters

Description

Query the created Virtual Border Routers (VBRs).

The relationship between the values of a filter is “or”. A VBR is returned as long as one filter is met.

The relationship between each filter is “and”. A VBR is returned only when all the filters are met.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeVirtualBorderRouters
RegionId	String	Yes	The region of the VBR. You can obtain the region ID by calling the DescribeRegions API.
Filter.n.Key	String	No	Filter keys. Valid value for n is [1,5]. Up to five filters are supported. The following are available filter keys: - VbrId: The ID of the VBR. - PhysicalConnectionId: The ID of the physical connection that the VBR is associated with.

			- AccessPointId: The ID of access point that the VBR connects to. - Status: The status of the VBR. - Name: The name of the VBR.
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.
VirtualBorderRouterSet	JSON string	The detailed information of queried VBRs. For more information, see VirtualBorderRouterSetType.
TotalCount	Integer	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	Integer	The number of entries on the current page.

Error codes

See VPC API Error Center.

Examples

Request example

```
###### DescribeVirtualBorderRoutershttp://vpc.aliyuncs.com/?Action=DescribeVirtualBorderRouters
&RegionId=cn-beijing
&<CommonParameters>
```

Response example

JSON format

```
{
"PageNumber": 1,
"VirtualBorderRouterSet": {
"VirtualBorderRouterType": [
{
"LocalGatewayIp": "10.1.1.1",
"PeerGatewayIp": "10.2.2.2",
"Description": "",
"PhysicalConnectionOwnerUid": "1231579085xxxx",
"VlanId": 10,
"RecoveryTime": "",
"PhysicalConnectionStatus": "Enabled",
"PhysicalConnectionId": "pc-2zeoaxkq3jotxxxxx",
"RouteTableId": "vtb-2ze9hmd6yofwxxxxxx",
"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-2zeum6rgu058xxxxxx",
"AccessPointId": "ap-cn-beijing-dx-A",
"VbrId": "vbr-2zecmmvg5gvuxxxxxx"
}
"TotalCount": 1,
"PageSize": 10,
"RequestId": "98B24329-ADC9-4725-A5F8-6C1B282DA17D"
}
```

DescribeVirtualBorderRoutersForPhysicalCon

nection

Description

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: DescribeVirtualBorderRoutersForPhysicalConnection
RegionId	String	Yes	The region of the physical connection. You can obtain the region ID by calling the DescribeRegions API.
PhysicalConnectionId	String	Yes	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.
VirtualBorderRouterForPhysicalConnectionSet	JSON string	The information of queried VBRs. For more information, see VirtualBorderRouterForPhysicalConnectionSetType.

TotalCount	Integer	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	Integer	The number of entries on the current page.

Error codes

See VPC API Error Center.

Examples

Request example

```
http://vpc.aliyuncs.com/?Action=DescribeVirtualBorderRoutersForPhysicalConnection
&PhysicalConnectionId=pc-2zeoaxkq3xxxxx
&RegionId=cn-beijing
&<CommonParameters>
```

Response example

JSON format


```
{
"PageNumber": 1,
"TotalCount": 1,
"PageSize": 10,
"RequestId": "012ADA38-8661-4FA6-9E84-73E7EB328142",
"VirtualBorderRouterForPhysicalConnectionSet": {
"VirtualBorderRouterForPhysicalConnectionType": [
{
"ActivationTime": "2018-03-06T11:16:34Z",
"CreationTime": "2018-03-06T11:16:34Z",
"CircuitCode": "",
"VlanId": 10,
"RecoveryTime": "",
"VbrOwnerUid": "123157908xxxxxx",
"TerminationTime": "",
"VbrId": "vbr-2zecmmvg5gvu8ixxxxx"
}
}
```

ModifyVirtualBorderRouterAttribute

Description

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. You can obtain the region ID by calling the DescribeRegions API.
VbrId	Integer	Yes	The ID of the VBR.
VlanId	Integer	Yes	The VLAN ID of the VBR. Valid value: [1, 2999]. The VLAN IDs of two VBRs of the same physical connection must be different. **Note**: Only the owner of the physical connection can specify this parameter.
CircuitCode	String	No	The circuit code provided by the network operator for the physical connection. **Note**: Only the owner of the physical connection can specify this parameter.
LocalGatewayIp	String	No	The Alibaba Cloud-

			Side IP address used as the gateway to connect to the local IDC.
PeerGatewayIp	String	No	The customer-side IP address used as the gateway to connect to VPC.
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. The name must start with an English letter, but cannot start withhttp:// or https://. The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens.
Description	String	No	The description of the VBR. The description must start with English letters, but cannot start with http:// or https://. The description can contain from 2 to 256 characters.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
http://vpc.aliyuncs.com/?Action=ModifyVirtualBorderRouterAttribute
&RegionId=cn-beijing
&VBRId=vbr-2zecmmvg5gvu8i4xxxxx
&Name=test
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId": "91C37558-4F94-4033-B41E-368E2983D53E"
}
```

TerminateVirtualBorderRouter

Description

Terminate a Virtual Border Router (VBR).

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

Note the following before terminating a VBR:

- Only the owner of the physical connection that the VBR connects to can call the API.
- After the VBR is terminated, the VLAN ID used by the VBR will be reserved by 7 days. After 7 days, the VLAN ID can be used by other VBRs.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: TerminateVirtualBorderRouter
RegionId	String	Yes	The region of the VBR. You can obtain the region ID by calling the DescribeRegions API.
VbrId	String	Yes	The ID of the VBR.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
http://vpc.aliyuncs.com/?Action=TerminateVirtualBorderRouter
&VbrId=vbr-2zeoaxkq3xxxxx
&RegionId=cn-beijing
&<CommonParameters>
```

Response example

JSON format

```
{
```

"RequestId": "012ADA38-8661-4FA6-9E84-73E7EB328142"
}

RecoverVirtualBorderRouter

Description

Recover a terminated VBR.

After the API is called, the VBR status will be changed from the **Terminated** status to the **Recovering** status. 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** status.

The recovery fails if the VLAN ID is used by other VBR after the VBR is terminated after 7 days.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: RecoverVirtualBorderRouter
RegionId	String	Yes	The region of the VBR. You can obtain the region ID by calling the DescribeRegions API.
VbrId	String	Yes	The ID of the VBR.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
http://vpc.aliyuncs.com/?Action=RecoverVirtualBorderRouter
&VbrId=vbr-2zecmmvg5gvu8ixxxxx
&RegionId=cn-beijing
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId": "91C37558-4F94-4033-B41E-368E2983D53E"
}
```

BGP

CreateBgpGroup

Description

Create a BGP group.

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).

You can use BGP for the communication between the Virtual Border Router (VBR) and the local IDC. Each BGP group is associated with a VBR. To use BGP, add the BGP peer communicating with the VBR to the corresponding BGP group and advertise the BGP network in the VBR.

Note the following before creating a BGP group:

The supported BGP version is 4 (BGP4).

IPv4 BGP is supported, but IPv6 BGP is not supported.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: CreateBgpGroup
RegionId	String	Yes	The region of the BGP group. You can obtain the region ID by calling the DescribeRegions API.
RouterId	String	Yes	The ID of the VBR.
PeerASN	Integer	Yes	The ASN of the BGP peer. It can 2 bytes or 4 bytes in length, but cannot be the same as the Alibaba Cloud-side ASN 45104.
AuthKey	String	No	The authentication key of the BGP group.
Name	String	No	The name of the BGP group. The name must start with an English letter, but cannot start withhttp:// or https://. The name can contain

			from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens.
Description	String	No	The description of the BGP group. The description must start with English letters, but cannot start with http:// or https://. The description can contain from 2 to 256 characters.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
BgpGroupId	String	The ID of the created BGP group.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=CreateBgpGroup
&RegionId=cn-beijing
&PeerAsn=2010
&RouterId=vbr-2zeff11o2sqhnp1u7ci93
&<CommonParameters>
```

Request example

XML format

```
<CreateBgpGroupResponse>
<BgpGroupId>bgpg-2zendnzngq9lkjkhvlrsr</BgpGroupId>
```

```
<RequestId>C1221A1F-2ACD-4592-8F27-474E02883159</RequestId>
</CreateBgpGroupResponse>
```

JSON format

```
{
"BgpGroupId": "bgpg-2zendnzngq9lkjkhvlrsr",
"RequestId": "C1221A1F-2ACD-4592-8F27-474E02883159"
}
```

DescribeBgpGroups

Description

Query the created BGP groups.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeBgpGroups
RegionId	String	Yes	The region of the BGP group. You can obtain the region ID by calling the DescribeRegions API.
BgpGroupId	String	No	The ID of the BGP group.
RouterId	String	No	The ID of the VBR associated with the BGP group.
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.
BGPGroups	JSON string	The detailed information of queried BGP groups.
TotalCount	Integer	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	Integer	The number of entries on the current page.

Error codes

See VPC API Error Center.

Examples

Request example

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

Response example

XML format

```
<DescribeBgpGroupsResponse>
<TotalCount>1</TotalCount>
<PageSize>10</PageSize>
<RequestId>08107C9E-2F15-4592-BD9A-C4B2E1550518</RequestId>
<BgpGroups>
<BgpGroup>
<BgpGroupId>bgpg-2ze5yaac33qfqzo1omgxu</BgpGroupId>
<LocalAsn>45104</LocalAsn>
<Hold>30</Hold>
<Description></Description>
<AuthKey></AuthKey>
```

```
<IsFake>true</IsFake>
<PeerAsn>1231</PeerAsn>
<Keepalive>10</Keepalive>
<RouteLimit>99</RouteLimit>
<Name></Name>
<Status>Modifying</Status>
<RouterId>vbr-2zeff11o2sqhnp1u7ci93</RouterId>
<RegionId>cn-beijing</RegionId>
</BgpGroup>
</BgpGroups>
</DescribeBgpGroupsResponse>
```

JSON format

```
{
"TotalCount": 1,
"PageSize": 10,
"RequestId": "08107C9E-2F15-4592-BD9A-C4B2E1550518",
"BgpGroups": {
"BgpGroup": [
{
"BgpGroupId": "bgpg-2ze5yaac33qfqzo1omgxu",
"LocalAsn": 45104,
"Hold": 30,
"Description": "",
"AuthKey": "",
"IsFake": true,
"PeerAsn": 1231,
"Keepalive": 10,
"RouteLimit": 99,
"Name": "",
"Status": "Modifying",
"RouterId": "vbr-2zeff11o2sqhnp1u7ci93",
"RegionId": "cn-beijing"
}
]
}
}
```

ModifyBgpGroupAttribute

Description

Modify the configurations of a BGP group.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: ModifyBgpGroupAttribute
RegionId	String	Yes	The region of the BGP group. You can query the region ID by calling the DescribeRegions API.
RouterId	String	Yes	The ID of the VBR.
PeerASN	Integer	Yes	The ASN of the BGP peer. It can be 2 bytes or 4 bytes in length. **Note:** The ASN of the BGP peer cannot be the same as the Alibaba Cloud-side ASN (45104).
Name	String	No	The name of the BGP group. The name must start with an English letter, but cannot start withhttp:// or https://. The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens.
Description	String	No	The description of the BGP group. The description must start with English letters, but cannot start with http:// or https://. The description can contain from 2 to 256 characters.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyBgpGroupAttribute
&RegionId=cn-beijing
&BgpGroupId=2010
&name=test
&<CommonParameters>
```

Response example

XML format

```
<ModifyBgpGroupAttributeResponse>
<RequestId>92378F77-F634-4508-A439-C6513EE793EF</RequestId>
</ModifyBgpGroupAttributeResponse>
```

JSON format

```
{
"RequestId": "92378F77-F634-4508-A439-C6513EE793EF"
}
```

DeleteBgpGroup

Description

Delete a BGP group.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DeleteBgpGroup
RegionId	String	Yes	The region of the BGP group. You can obtain the region ID by calling the DescribeRegions API.
BgpGroupId	String	Yes	The ID of the BGP group.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DeleteBgpGroup
&RegionId=cn-beijing
&BgpGroupId=2010
&<CommonParameters>
```

Response example

XML format

```
<DeleteBgpGroupResponse>
<RequestId>97E2E97F-968C-48AF-A310-AC4D068854DB</RequestId>
</DeleteBgpGroupResponse>
```

JSON format

```
{
"RequestId": "97E2E97F-968C-48AF-A310-AC4D068854DB"
}
```

CreateBgpPeer

Description

Add a BGP peer to a BGP group.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: CreateBgpPeer
RegionId	String	Yes	The region of the BGP group. You can obtain the region ID by calling the DescribeRegions API.
BgpGroupId	String	Yes	The ID of the BGP group.
PeerIpAddress	String	Yes	The IP address of the BGP peer.

			You can enter the customer-side IP address specified when creating the VBR.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
BgpPeerId	String	The ID of the BGP peer.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=CreateBgpPeer
&RegionId=cn-beijing
&PeerIpAddress=11.11.11.11
&BgpGroupId=2010
&<CommonParameters>
```

Response example

XML format

```
<CreateBgpPeerResponse>
<RequestId>30879E22-9BE7-4ED9-8C43-2AE518A771B3</RequestId>
</CreateBgpPeerResponse>
```

JSON format

```
{
"RequestId": "30879E22-9BE7-4ED9-8C43-2AE518A771B3"
}
```

DescribeBgpPeers

Description

Query the BGP peers in a region.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeBgpPeers
RegionId	String	Yes	The region of the BGP peer. You can obtain the region ID by calling the DescribeRegions API.
BgpPeerId	String	No	The ID of the BGP peer.
RouterId	String	No	The ID of the VBR.
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.
BgpPeers	JSON string	The detailed information of queried BGP peers.
TotalCount	Integer	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	Integer	The number of entries on the current page.

BgpPeers **objects**		
BGPPeerId	String	The ID of the BGP peer.
Name	String	The name of the BGP peer.
LocalIpAddress	String	The IP address of the Alibaba Cloud side.
PeerIpAddress	String	The IP address of the BGP peer.
PeerASN	Integer	The ASN of the BGP peer.
AuthKey	String	The key used by the BGP group.
BGPStatus	String	The connection status of the BGP.
RouterId	String	The ID of the VBR.
Status	String	The status of the BGP peer.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DescribeBgpPeers
&VRouterId=vrt-25u5f8u2q
&<CommonParameters>
```

Response example

XML format

```
<DescribeBgpPeersResponse>
<TotalCount>1</TotalCount>
<BgpPeers>
<BgpPeer>
<Status>Available</Status>
<LocalAsn>45104</LocalAsn>
<Description></Description>
<BgpPeerId>bgp-2ze0dxfpp6fuw7gmzpaaa</BgpPeerId>
<RegionId>cn-beijing</RegionId>
<PeerIpAddress>11.11.11.11</PeerIpAddress>
<IsFake>true</IsFake>
<RouteLimit>99</RouteLimit>
```

```
<PeerAsn>2010</PeerAsn>
<AuthKey>888</AuthKey>
<RouterId>vbr-2zeff11o2sqhnp1u7ci93</RouterId>
<BgpGroupId>bgpg-2zeibi8idqnkhhgxgdcw9</BgpGroupId>
<BgpStatus></BgpStatus>
<Name></Name>
<Hold>30</Hold>
<Keepalive>10</Keepalive>
</BgpPeer>
</BgpPeers>
<RequestId>3D6B3CB0-BEEE-4F30-8559-B3DA14AD705F</RequestId>
<PageSize>10</PageSize>
</DescribeBgpPeersResponse>
```

JSON format

```
{
"TotalCount": 1,
"BgpPeers": {
"BgpPeer": [
{
"Status": "Available",
"LocalAsn": 45104,
"Description": "",
"BgpPeerId": "bgp-2ze0dxfpp6fuw7gmzpaaa",
"RegionId": "cn-beijing",
"PeerIpAddress": "11.11.11.11",
"IsFake": true,
"RouteLimit": 99,
"PeerAsn": 2010,
"AuthKey": "888",
"RouterId": "vbr-2zeff11o2sqhnp1u7ci93",
"BgpGroupId": "bgpg-2zeibi8idqnkhhgxgdcw9",
"BgpStatus": "",
"Name": "",
"Hold": 30,
"Keepalive": 10
}
]
},
"RequestId": "3D6B3CB0-BEEE-4F30-8559-B3DA14AD705F",
"PageSize": 10
}
```

DeleteBgpPeer

Description

Delete a BGP peer.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DeleteBgpPeer
RegionId	String	Yes	The region of the BGP group. You can obtain the region ID by calling the DescribeRegions API.
BgpPeerId	String	Yes	The ID of the BGP peer.
PeerASN	Integer	No	The ASN of the customer-side network.
Name	String	No	The name of the BGP group.
Description	String	No	The description of the BGP group.

Response parameters

Name	Type	Required
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

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

```
&RegionId=cn-beijing
&BgpPeerId=bgp-2zenof4u02mhxh890u3vd
&<CommonParameters>
```

Response example

XML format

```
<DeleteBgpPeerResponse>
<RequestId>AEBB1EB6-3C15-4A35-B4CE-03485200C143</RequestId>
</DeleteBgpPeerResponse>
```

JSON format

```
{
"RequestId": "AEBB1EB6-3C15-4A35-B4CE-03485200C143"
}
```

AddBgpNetwork

Description

Advertise a BGP network in a VBR.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: AddBgpNetwork
RegionId	String	Yes	The region of the VBR. You can obtain the region ID by calling the DescribeRegions API.
dstCidrBlock	String	Yes	The CIDR block of the

			VPC or VSwitch to be connected to the local IDC.
routeId	String	Yes	The ID of the VBR.

Response parameters

Name	Type	Required
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=AddBgpNetwork
&RegionId=cn-beijing
&RouterId=vbr-2zeff11o2sqhnp1u7ci93&DstCidrBlock=10.1.1.0%2F24
&<CommonParameters>
```

Response example

XML format

```
<AddBgpNetworkResponse>
<RequestId>9C7FA9D6-72E0-48A9-A9C3-2DA8569CD5EB</RequestId>
</AddBgpNetworkResponse>
```

JSON format

```
{
"RequestId": "9C7FA9D6-72E0-48A9-A9C3-2DA8569CD5EB"
}
```

DeleteBgpNetwork

Description

Delete an advertised BGP network.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DeleteBgpNetwork
RegionId	String	Yes	The region of the BGP network. You can obtain the region ID by calling the DescribeRegions API.
dstCidrBlock	String	Yes	The advertised BGP network, which is the CIDR block of the VPC or VSwitch to be connected to the local IDC.
routeId	String	Yes	The ID of the VBR.

Response parameters

Name	Type	Required
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DeleteBgpNetwork
&RegionId=cn-beijing
&RouterId=vbr-2zeff11o2sqhnp1u7ci93
&DstCidrBlock=10.1.1.0/24
&<CommonParameters>
```

Response example

XML format

```
<DeleteBgpNetworkResponse>
<RequestId>22F4C006-D3BB-4F96-9FF9-4C8335276D70</RequestId>
</DeleteBgpNetworkResponse>
```

JSON format

```
{
"RequestId": "22F4C006-D3BB-4F96-9FF9-4C8335276D70"
}
```

DescribeBgpNetwork

Description

Query the advertised BGP networks.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeBgpNetwork
RegionId	String	Yes	The region of the VBR.

			You can obtain the region ID by calling the DescribeRegions API.
dstCidrBlock	String	Yes	The advertised BGP network, which is the CIDR block of the VPC or VSwitch to be connected to the local IDC.
routeId	String	Yes	The ID of the VBR.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
BgpNetworks	JSON string	A list of queried BGP networks.
TotalCount	Integer	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	Integer	The number of entries on the current page.
BgpNetwork **objects**		
dstCidrBlock	String	The advertised CIDR block.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DescribeBgpNetworks
&RegionId=cn-beijing
&RouterId=vbr-2zeff11o2sqhnp1u7ci93
&DstCidrBlock=10.1.1.0%2F24
&<CommonParameters>
```

Response example

XML format

```
<DescribeBgpNetworksResponse>
<BgpNetworks>
<BgpNetwork>
<DstCidrBlock>10.1.1.0/24</DstCidrBlock>
<VpcId></VpcId>
</BgpNetwork>
</BgpNetworks>
<RequestId>6F513A15-669F-419D-B511-08A85292059B</RequestId>
<PageSize>10</PageSize>
<TotalCount>1</TotalCount>
</DescribeBgpNetworksResponse>
```

JSON format

```
{
"BgpNetworks": {
"BgpNetwork": [
{
"DstCidrBlock": "10.1.1.0/24",
"VpcId": ""
}
]
},
"RequestId": "6F513A15-669F-419D-B511-08A85292059B",
"PageSize": 10,
"TotalCount": 1
}
```

NAT Gateway

CreateNatGateway

Description

Create a NAT Gateway.

Note the following before creating a NAT Gateway:

A NAT Gateway and a self-built SNAT Gateway cannot coexist in a VPC.

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, delete the router entry.

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. Therefore, traffic can be routed to the NAT Gateway.

Specification

The NAT Gateway has different specifications. Different specifications correspond to different SNAT performance metrics including Max Connection and CPS, but the specification does not affect data throughput.

The following table lists available NAT Gateway specifications:

Specification	Max Connection	CPS
Small	10,000	1,000
Medium	50,000	5,000
Large	200,000	10,000

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: CreateNatGateway
RegionId	String	Yes	The region of the NAT Gateway. You can obtain the region ID by calling the DescribeRegions API.
VpcId	String	Yes	The ID of the VPC to which the NAT Gateway belongs.
Spec	String	No	The specification of the NAT Gateway. Valid value:

			- Small (Default) - Middle - Large
Name	String	No	The name of the NAT Gateway. The name must start with an English letter, but cannot start withhttp:// or https://. The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens. /td>
Description	String	No	The description of the NAT Gateway. The description must start with English letters, but cannot start with http:// or https://. The description can contain from 2 to 256 characters.
ClientToken	String	No	A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be unique. It cannot exceed 64 ASCII characters. For more information, see How to ensure idempotence.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
NatGatewayId	String	The ID of the NAT Gateway.
ForwardTableIds	Array	The list of forwarding entries.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=CreateNatGateway
&VpcId=vpc-11af8lp67
&Name=MyNatGW
&RegionId=cn-shanghai
&Description=My+first+NAT+Gateway
<CommonParameters>
```

Response example

JSON format

```
{
"ForwardTableIds": {
"ForwardTableId": [
"ftb-11tc6xgmv"
]
},
"NatGatewayId": "ngw-112za33e4",
"RequestId": "2315DEB7-5E92-423A-91F7-4C1EC9AD97C3"
}
```

DescribeNatGateways

Description

Query the created NAT Gateways in a specified region.

Request parameters

Name	Type	Required	Description

Action	String	Yes	The action to perform. Valid value: DescribeNatGateways
RegionId	String	Yes	The region of the NAT Gateway. You can query the region ID by calling the DescribeRegions API.
NatGatewayId	String	No	The ID of the NAT Gateway.
VpcId	String	No	The ID of the VPC.
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
NatGateways	JSON string	A list of queried NAT Gateways.
TotalCount	Integer	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	Integer	The number of entries on the current page.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?&Action=DescribeNatGateways
&VpcId=vpc-11af8lp67
```

```
&RegionId=cn-shanghai
&<CommonParameters>
```

Response example

XML format

```
<DescribeNatGatewaysResponse>
<PageNumber>1</PageNumber>
<TotalCount>1</TotalCount>
<PageSize>10</PageSize>
<RequestId>CF5D6933-C574-4FEC-83C0-4DF63EBD19CE</RequestId>
<NatGateways>
<NatGateway>
<Description/>
<Spec>Small</Spec>
<ForwardTableIds>
<ForwardTableId>ftb-rj9p798gwt2k3yk6c6yxh</ForwardTableId>
</ForwardTableIds>
<VpcId>vpc-rj983s9gj1nssugzh49vr</VpcId>
<NatGatewayId>ngw-rj99ps4cq9lfse0ried3l</NatGatewayId>
<CreationTime>2017-01-23T02:30:31Z</CreationTime>
<BandwidthPackageIds>
<BandwidthPackageId>bwp-rj911xdpev0h9liwesfg4</BandwidthPackageId>
</BandwidthPackageIds>
<Name/>
<Status>Available</Status>
<BusinessStatus>Normal</BusinessStatus>
<RegionId>us-west-1</RegionId>
<SnatTableIds>
<SnatTableId>stb-rj9u47y5gl255bgmb3ady</SnatTableId>
</SnatTableIds>
<InstanceChargeType>PostPaid</InstanceChargeType>
</NatGateway>
</NatGateways>
</DescribeNatGatewaysResponse>
```

ModifyNatGatewaySpec

Description

Modify the specification of a NAT gateway.

Note: The NAT Gateway is billed at the largest specification used in a day.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: ModifyNatGatewaySpec
RegionId	String	Yes	The region of the NAT gateway. You can obtain the region by calling the DescribeRegions API.
NatGatewayId	String	Yes	The ID of the NAT gateway.
Spec	String	No	The specification of the NAT gateway. Valid value: - Small - Middle - Large
ClientToken	String	No	A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be unique. It cannot exceed 64 ASCII characters. For more information, see How to guarantee idempotence.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
NatGatewayId	String	The ID of the NAT gateway.
ForwardTableIds	JSON string	A list of DNAT tables.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyNatGatewaySpec
&NatGatewayId=ngw-xxoo123
&RegionId=cn-hangzhou
&Spec=Small
&<CommonParameters>
```

Response example

JSON format

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

ModifyNatGatewayAttribute

Description

Modify the name and description of a NAT Gateway.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: ModifyNatGatewayAttribute

RegionId	String	Yes	The region of the NAT Gateway. You can obtain the region ID by calling the DescribeRegions API.
NatGatewayId	String	Yes	The ID of the NAT Gateway.
Name	String	No	The name of the NAT Gateway. The name must start with an English letter, but cannot start withhttp:// or https://. The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens.
Description	String	No	The description of the NAT Gateway. The description must start with English letters, but cannot start with http:// or https://. The description can contain from 2 to 256 characters.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyNatGatewayAttribute
&RegionId=cn-shanghai
&NatGatewayId=ngw-7mwb327j1
&Name=test
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId": "AB5F62CF-2B60-4458-A756-42C9DFE108D1"
}
```

DeleteNatGateway

Description

Delete a NAT gateway.

> **Note**: If the NAT gateway is associated with a bandwidth package, delete the bandwidth package first.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DeleteNatGateway
RegionId	String	Yes	The region of the NAT gateway. You can obtain the region ID by calling the DescribeRegions API.

NatGatewayId	Integer	Yes	The ID of the NAT gateway.

Response parameters

Name	Type	Required
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?&Action=DeleteNatGateway
&RegionId=cn-shanghai
&NatGatewayId=ngw-112za33e4
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId": "4EC47282-1B74-4534-BD0E-403F3EE64CAF"
}
```

AssociateEipAddress

Description

Bind an EIP to a NAT gateway in the same region.

Note: You can bind an EIP to a cloud service instance or a HaVip instance in the same region. This document takes binding an EIP to a NAT gateway as an example. For more information, see AssociateEipAddress.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: AssociateEipAddress
AllocationId	String	Yes	The ID of the EIP instance.
InstanceType	String	No	The type of the cloud product instance. To bind the EIP to a NAT gateway, set the value to Nat.
InstanceId	String	Yes	The ID of the NAT gateway.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=AssociateEipAddress
&AllocationId=eip-2ze3xezfnriwn6kgvpftq
&InstanceId=ngw-bp1sphhtsccyjd1hglxum
&InstanceType=Nat
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId":"C0FD0EED-F90D-4479-803D-DD62335357E5"
}
```

UnassociateEipAddress

UnassociateEipAddress

Unbind an EIP from a NAT gateway.

> **Note**: This document introduces how to use the API to unbind an EIP from a NAT gateway. For more information about unbinding an EIP from ECS or SLB instances, see UnassociateEipAddress.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: UnassociateEipAddress
AllocationId	String	Yes	The ID of the EIP instance.
InstanceType	String	No	The type of the cloud product instance. To unbind the EIP from a NAT gateway, set the value to Nat.
InstanceId	String	Yes	The ID of the cloud product instance.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=UnassociateEipAddress
&AllocationId=eip-2ze3xezfnriwn6kgvpftq
&InstanceId=ngw-bp1sphhtsccyjd1hglxum
&InstanceType=Nat
&<CommonParameters>
```

Response example

XMLformat

```
<UnassociateEipAddressResponse>
<RequestId>220F3179-5238-47F0-A0CA-1272AA2BC41F </RequestId>
</UnassociateEipAddressResponse>
```

JSONformat

```
{
"RequestId": "220F3179-5238-47F0-A0CA-1272AA2BC41F"
}
```

CreateForwardEntry

Description

Add a DNAT entry in 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 from [ExternalIp:ExternalPort] to [InternalIp:InternalPort], and sends the response back by the same way.

Note:

ExternalIp must meet the following conditions:

If your account has purchased a NAT bandwidth package before 23:59, January 26, 2018, ExternalIp must be a public IP in the NAT bandwidth package of the NAT gateway.

If your account did not purchase a NAT bandwidth package before 23:59, January 26, 2018, ExternalIp must be the EIP bound to the NAT gateway. For more information, see Bind EIPs.

A public IP cannot be used in both SNAT and DNAT entries at the same time.

InternalIp must meet the following requirements:

InternalIp must belongs 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 and the instance is not bound 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.

The combination of ExternalIp, ExternalPort, and Protocol of all DNAT entries cannot duplicate, that is, the message of the same IP, port, and protocol cannot be forwarded to multiple targets.

The combination of Protocol, InternalIp, and InternalPort of all DNAT entries cannot duplicate.

If any DNAT entry in the DNAT table is in the Pending or Modifying status, a new DNAT entry cannot be added.

A maximum of 40 DNAT entries can be added to a DNAT table.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: CreateForwardEntry
RegionId	String	Yes	The region of the NAT gateway. You can obtain the region ID by calling the DescribeRegions API.
ForwardTableId	String	Yes	The ID of the DNAT table.
ExternalIp	String	Yes	The public IP address.
ExternalPort	String	Yes	The public port. Valid value: [1, 65535]
IpProtocol	String	Yes	The protocol type. Valid value: - TCP: forward TCP packets. - UDP: forward UDP packets. - Any: forward all packets.
InternalIp	String	Yes	The target private IP address.
InternalPort	String	Yes	The target private port. Valid value: [1, 65535]

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
ForwardEntryId	String	The ID of the DNAT entry.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=CreateForwardEntry
&ExternalIp=139.224.22.107
&RegionId=cn-shanghai
&ExternalPort=Any
&InternalIp=192.168.1.1
&ForwardTableId=ftb-11tc6xgmv
&IpProtocol=Any
&InternalPort=Any
<CommonParameters>
```

Response example

JSON format

```
{
"ForwardEntryId": "fwd-119smw5tk",
"RequestId": "A4AEE536-A97A-40EB-9EBE-53A6948A6928"
}
```

DescribeForwardTableEntries

Description

Query the list of DNAT entries in a DNAT table.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeForwardTableEntries
RegionId	String	Yes	The region of the NAT gateway. You can obtain the region ID by calling the DescribeRegions API.
ForwardTableId	String	Yes	The ID of the DNAT 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.
ForwardTableEntries	JSON string	The list of queried DNAT entries.
TotalCount	Integer	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	Integer	The number of entries on the current page.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?&Action=DescribeForwardTableEntries
&RegionId=cn-shanghai
&ForwardTableId=ftb-11tc6xgmv
&<CommonParameters>
```

Response example

JSON format

```
{
"PageNumber": 1,
"TotalCount": 1,
"PageSize": 10,
"RequestId": "74F2BAD8-AF35-4C57-81F1-5E33BFB0F5F2",
"ForwardTableEntries": {
"ForwardTableEntry": [
{
"Status": "Available",
"IpProtocol": "any",
"ForwardEntryId": "fwd-bp18jpb1tlm550di3q5pb",
"ExternalIp": "47.97.xx.xx",
"ForwardTableId": "ftb-bp15o9aylj19vfvgtnzoy",
"ExternalPort": "any",
"InternalPort": "any",
"InternalIp": "192.168.xx.xx"
}
]
}
}
```

ModifyForwardEntry

Description

Modify a DNAT entry.

Note: You cannot modify a DNAT entry if any DNAT entry in the DNAT table is in the Pending or Modifying status.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: ModifyForwardEntry
RegionId	String	Yes	The region of the NAT gateway. You can obtain the region ID by calling the DescribeRegions API.
ForwardTableId	String	Yes	The ID of the DNAT table.
ForwardEntryId	String	Yes	The ID of the DNAT entry.
ExternalIp	String	Yes	The public IP address.
IpProtocol	String	Yes	The protocol type. Valid value: - TCP: forward TCP packets. - UDP: forward UDP packets. - Any: forward all packets.
ExternalPort	String	No	The public port. Valid value: [1, 65535]
InternalIp	String	Yes	The private IP address.
InternalPort	String	Yes	The private port. Valid value: [1, 65535]

Response parameters

Name	Type	Description

RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Example

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyForwardEntry
&RegionId=cn-shanghai
&ForwardEntryId=fwd-11iv34uj7
&InternalIp=192.168.1.3&ForwardTableId=ftb-11tc6xgmv
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId": "24CC85DC-7700-4F09-9624-99E988C7DD03"
}
```

DeleteForwardEntry

Description

Delete a DNAT entry.

Note: You cannot delete a DNAT entry if any DNAT entry in the DNAT table is in the Pending or Modifying status.

Request parameters

Name	Type	Required	Description

Action	String	Yes	The action to perform. Valid value: DeleteForwardEntry
RegionId	String	Yes	The region of the NAT gateway. You can obtain the region ID by calling the DescribeRegions API.
ForwardTableId	String	Yes	The ID of the DNAT table.
ForwardEntryId	String	Yes	The ID of the DNAT entry.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DeleteForwardEntry
&RegionId=cn-shanghai
&ForwardEntryId=fwd-11iv34uj7
&ForwardTableId=ftb-11tc6xgmv
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId": "4EC47282-1B74-4534-BD0E-403F3EE64CAF"
```

```
}
```

CreateSnatEntry

Description

Add an SNAT entry in an SNAT table.

Each SNAT entry consists of SourceVSwitchId and SnatIp. After an SNAT entry is added, ECS instances under the specified VSwitch can access the Internet using the public IP (SnatIp).

Note the following before creating an SNAT entry:

- The VSwitch in the SNAT entry must meet the following requirements:
  - The VSwitch must belong to the same VPC as the NAT gateway.
  - The SNAT entry cannot be added if there is any HaVip instance under the VSwitch.
  - Each VSwitch can belong to only one SNAT entry.
- The public IP (SnatIp) in the SNAT entry must meet the following requirements:
  - If your account has a NAT bandwidth package before 23:59, January 26, 2018, SnatIp must be a public IP address in the NAT bandwidth package of the NAT gateway.
  - An EIP cannot be used in a DNAT entry and an SNAT entry at the same time, but can be used by multiple SNAT entries.
  - If your account does not have a NAT bandwidth package before 23:59, January 26, 2018, SnatIp must be an EIP bound to the NAT gateway. For more information, see Bind EIPs.

Request parameters

Name	Type	Required	Description

Action	String	Yes	The action to perform. Valid value: CreateSnatEntry
RegionId	String	Yes	The region of the NAT gateway. You can obtain the region ID by calling the DescribeRegions API.
SnatTableId	String	Yes	The ID of the SNAT table.
SourceVSwitchId	String	Yes	The ID of the VSwitch.
SourceCIDR	String	No	The CIDR block of the VSwitch, such as 10.1.1.0/24. **Note**: This parameter and the SourceVSwitchId parameter cannot be specified at the same time.
SnatIp	String	Yes	The public IP address. Separate multiple EIPs by commas, such as 47.XXX.XXX.98,47.XXX.XXX.99,47.XXX.XXX.241.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
SnatEntryId	String	The ID of the SNAT entry.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=CreateSnatEntry
&RegionId=cn-shanghai
&SnatTableId=stb-gz3r3odaw
&SnatIp=139.224.22.40
&SourceVSwitchId=vsw-yrv0winkw
<CommonParameters>
```

Response example

JSON format

```
{
"RequestId": "69B31D6E-9F34-4A5A-8DBC-230A3918E828",
"SnatEntryId": "snat-kmd6nv8fy"
}
```

DescribeSnatTableEntries

Description

Query SNAT entries in a SNAT table.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeSnatTableEntries
RegionId	String	Yes	The region of the NAT gateway. You can obtain the region ID by calling the DescribeRegions API.

SnatTableId	String	Yes	The ID of the SNAT 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.
SnatTableEntries	JSON string	The list of queried SNAT entries.
TotalCount	Integer	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	Integer	The number of entries on the current page.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DescribeSnatTableEntries
&RegionId=cn-shanghai
&SnatTableId=stb-gz3r3odaw
<CommonParameters>
```

Response example

JSON format

```
{
```

```
"PageNumber": 1,
"PageSize": 10,
"RequestId": "6D7E89B1-1C5B-412B-8585-4908E222EED5",
"SnatTableEntries": {
"SnatTableEntry": [
{
"SnatEntryId": "snat-kmd6nv8fy",
"SnatIp": "139.xxx.xx.40",
"SnatTableId": "stb-gz3r3odaw",
"SourceCIDR": "192.168.1.0/24",
"SourceVSwitchId": "vsw-yrv0xxxxx",
"Status": "Available"
},
{
"SnatEntryId": "snat-bs5bezbme",
"SnatIp": "139.xxx.xx.40",
"SnatTableId": "stb-gz3r3odaw",
"SourceCIDR": "192.168.3.0/24",
"SourceVSwitchId": "vsw-3xbxxxxx",
"Status": "Available"
}
]
},
"TotalCount": 2
}
```


ModifySnatEntry

Description

Modify the SnatIP (public IP) in the specified SNAT entry.

Note the following before modifying the SnatIP:

> If your account has a NAT bandwidth package before 23:59, January 26, 2018, SnatIP must be a public IP in the NAT bandwidth package of the NAT gateway.
>
> If your account does not have a NAT bandwidth package before 23:59, January 26, 2018, SnatIP must be an EIP of the NAT gateway. For more information, see AssociateEipAddress.

Request parameters

Name	Type	Required	Description

Action	String	Yes	The action to perform. Valid value: ModifySnatEntry
RegionId	String	Yes	The region of the NAT gateway. You can obtain the region ID by calling the DescribeRegions API.
SnatTableId	String	Yes	The ID of the SNAT table to which the SNAT entry belongs.
SnatEntryId	String	Yes	The ID of the SNAT entry.
SnatIp	String	No	The public IP used for accessing the Internet. Separate multiple IPs by commas, such as 47.XXX.XXX.98,47.XXX.XXX.99,47.XXX.XXX.241.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifySnatEntry
&SnatEntryId=snat-bs5bezbme
&RegionId=cn-shanghai
&SnatTableId=stb-gz3r3odaw
&SnatIp=139.224.36.107
<CommonParameters>
```

Response example

JSON format

```
{
"RequestId": "C4C873E5-8B92-4CD8-9163-66703A808E46"
}
```

Delete an SNAT entry

Description

Delete a SNAT entry.

Request parameters

Name	Type	Required	Description
Action	String	Yes	System required parameter. Valid value: DeleteSnatEntry
RegionId	String	Yes	The region of the NAT gateway. You can obtain the region ID by calling the DescribeRegions API.
SnatTableId	String	Yes	The ID of the SNAT table.
SnatEntryId	String	Yes	The ID of the SNAT entry.

Response parameters

Name	Type	Description

RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DeleteSnatEntry
&SnatEntryId=snat-bs5bezbme
&RegionId=cn-shanghai
&SnatTableId=stb-gz3r3odaw
<CommonParameters>
```

Response example

JSON format

```
{
"RequestId": "47B80B6A-759A-479C-A565-76D04BDA29F3"
}
```

VPN

DescribeVpnGateways

Description

Query the list of VPN gateways.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeVpnGateways
RegionId	String	Yes	The region of the VPN gateway. You can obtain the region ID by calling the DescribeRegions API.
VpcId	String	No	The ID of the VPC to which the VPN gateway belongs.
Status	String	No	The status of the VPN gateway. Valid value: init | provisioning | active | updating | deleting
BusinessStatus	String	No	The business status of the VPN gateway. Valid value: Normal | FinancialLocked
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.
VpnGateways	JSON string	The list of queried VPN gateways.
TotalCount	Integer	The number of queried entries.
PageNumber	Integer	The current page number.

PageSize	Integer	The number of entries on the current page.
VpnGateways **objects**		
Name	**Type**	**Description**
VpnGatewayId	String	The ID of the VPN gateway.
VpcId	String	The ID of the VPC to which the VPN gateway belongs.
VSwitchId	String	The ID of the VSwitch to which the VPN gateway belongs.
InternetIp	String	The public IP address.
CreateTime	Long	The creation time of the VPN gateway.
EndTime	Long	The expiration time of the VPN gateway.
Spec	String	The specification of the VPN gateway.
Name	String	The name of the VPN gateway.
Description	String	The description of the VPN gateway.
Status	String	The status of the VPN gateway.
BusinessStatus	String	The business status of the VPN gateway.

Error codes

See VPC API Error Center.

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>
<VpnGateways>
<VpnGateway>
<Status>active</Status>
<VpnGatewayId>vpn-bp1q8bgx4xnkm2ogj0fiu</VpnGatewayId>
<BusinessStatus>Normal</BusinessStatus>
<Spec>5M</Spec>
<CreateTime>1492753580000</CreateTime>
<InternetIp>116.62.69.64</InternetIp>
<EndTime>1495382400000</EndTime>
<VSwitchId>vsw-bp1y9ovl1cu9ou4tvma0l</VSwitchId>
<VpcId>vpc-bp1ub1yt9cvakoelj1y9c</VpcId>
</VpnGateway>
</VpnGateways>
<RequestId>DF11D6F6-E35A-41C3-9B20-6FC8A901FE65</RequestId>
</DescribeVpnGatewaysResponse>
```

JSON format

```
{
"PageNumber":1,
"TotalCount":1,
"VpnGateways":{
"VpnGateway":[
{
"Status":"active",
"VpnGatewayId":"vpn-bp1q8bgx4xnkm2ogj0fiu",
"BusinessStatus":"Normal",
"Spec":"5M",
"CreateTime":1492753580000,
"InternetIp":"116.62.69.64",
"EndTime":1495382400000,
"VSwitchId":"vsw-bp1y9ovl1cu9ou4tvma0l",
"VpcId":"vpc-bp1ub1yt9cvakoelj1y9c"
}
]
},
"PageSize":10,
"RequestId":"B2CD1315-CA2B-47B1-9DA5-8F1D69C48E82"
}
```

DescribeVPNGateway

Description

Query the detailed information of a VPN gateway.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeVpnGateway
RegionId	String	Yes	The region of the VPN gateway. You can obtain the region ID by calling the DescribeRegions API.
VpnGatewayId	String	Yes	The ID of the VPN gateway.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
VpnGatewayId	String	The ID of the VPN gateway.
VpcId	String	The ID of the VPC to which the VPN gateway belongs.
VSwitchId	String	The ID of the VSwitch to which the VPN gateway belongs.
InternetIp	String	The public IP address.
CreateTime	Long	The creation time of the VPN gateway.
EndTime	Long	The expiration time of the VPN gateway.
Spec	String	The specification of the VPN gateway.
Name	String	The name of the VPN gateway.
Description	String	The description of the VPN gateway.
Status	String	The status of the VPN gateway.

BusinessStatus	String	The business status of the VPN gateway.

Error codes

See VPC API Error Center.

Examples

Request example

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

Response example

XML format

```
<DescribeVpnGatewayResponse>
<Status>active</Status>
<VpnGatewayId>vpn-bp1q8bgx4xnkm2ogj0fiu</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-bp1y9ovl1cu9ou4tvma0l</VSwitchId>
<VpcId>vpc-bp1ub1yt9cvakoelj1y9c</VpcId>
</DescribeVpnGatewayResponse>
```

JSON format

```
{
"Status": "active",
"VpnGatewayId": "vpn-bp1q8bgx4xnkm2ogj0fiu",
"BusinessStatus": "Normal",
"Spec": "5M",
"CreateTime": 1492753580000,
"RequestId": "E98A9651-7098-40C7-8F85-C818D1EBBA85",
"InternetIp": "116.62.69.64",
"EndTime": 1495382400000,
```

"VSwitchId": "vsw-bp1y9ovl1cu9ou4tvma0l",
"VpcId": "vpc-bp1ub1yt9cvakoelj1y9c"
}

ModifyVpnGatewayAttribute

Description

Modify the name and description of a VPN gateway.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: ModifyVpnGatewayAttribute
RegionId	String	Yes	The region of the VPN gateway. You can obtain the region ID by calling the DescribeRegions API.
VpnGatewayId	String	Yes	The ID of the VPN gateway.
Token	String	No	A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be unique. It cannot exceed 64 ASCII characters. For more information, see How to ensure idempotence.
Name	String	No	The name of the VPN gateway.

			- The name must start with an English letter, but cannot start withhttp:// or https://. - The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens.
Description	String	No	The description of the VPN gateway. - The description must start with English letters, but cannot start with http:// or https://. - The description can contain from 2 to 256 characters.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
VpnGatewayId	String	The ID of the VPN gateway.
VpcId	String	The ID of the VPC to which the VPN gateway belongs.

VSwitchId	String	The ID of the VSwitch to which the VPN gateway belongs.
InternetIp	String	The public IP address.
CreateTime	Long	The creation time of the VPN gateway.
EndTime	Long	The expiration time of the VPN gateway.
Spec	String	The specification of the VPN gateway.
Name	String	The name of the VPN gateway.
Description	String	The description of the VPN gateway.
Status	String	The status of the VPN gateway.
BusinessStatus	String	The business status of the VPN gateway.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyVpnGatewayAttribute
&RegionID=cn-beijing
&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>172.16.104.158</IntranetIp>
```

```
<RequestId>54B48E3D-DF70-471B-AA93-08E683A1B457</RequestId>
<InternetIp>116.62.69.64</InternetIp>
<EndTime>1495382400000</EndTime>
<VSwitchId>vsw-bp1y9ovl1cu9ou4tvma0l</VSwitchId>
<VpcId>vpc-bp1ub1yt9cvakoelj1y9c</VpcId>
</ModifyVpnGatewayAttributeResponse>
```

JSON format

```
{
"Name":"aaa",
"Status":"active",
"VpnGatewayId":"vpn-bp1q8bgx4xnkm2ogj0fiu",
"BusinessStatus":"Normal",
"Spec":"5M",
"CreateTime":1492753580000,
"IntranetIp":"172.16.104.158",
"RequestId":"BA56EAF8-E3A9-4BE6-8511-8F03512153E2",
"InternetIp":"116.62.69.64",
"EndTime":1495382400000,
"VSwitchId":"vsw-bp1y9ovl1cu9ou4tvma0l",
"VpcId":"vpc-bp1ub1yt9cvakoelj1y9c"
}
```

DeleteVpnGateway

Description

Delete a VPN gateway.

Note: You cannot delete a VPN gateway associated with an IPsec connection.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DeleteVpnGateway
RegionId	String	Yes	The region of the VPN gateway.

			You can obtain the region ID by calling the DescribeRegions API.
Token	String	Yes	A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be unique. It cannot exceed 64 ASCII characters. For more information, see How to ensure idempotence.
VpnGatewayId	Integer	Yes	The ID of the VPN gateway.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

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

Response example

XMLformat

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

JSON format

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

CreateCustomerGateway

Description

Create a customer gateway.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: CreateCustomerGateway
RegionId	String	Yes	The region of the customer gateway. You can obtain the region ID by calling the DescribeRegions API.
IpAddress	String	Yes	The IP address of the customer gateway.
Name	String	No	The name of the customer gateway. - The name must start with an

			English letter, but cannot start withhttp:// or https://. - The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens.
Description	String	No	The description of the customer gateway. - The description must start with English letters, but cannot start with http:// or https://. - The description can contain from 2 to 256 characters.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
CustomerGatewayId	String	The ID of the customer gateway.
IpAddress	String	The IP address of the customer gateway.
Name	String	The name of the customer gateway.
Description	String	The description of the customer

		gateway.
CreateTime	Long	The creation time of the customer gateway.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=CreateCustomerGateway
&RegionID=cn-beijing
&IpAddress=100.1.1.2
&<CommonParameters>
```

Response example

XML format

```
<CreateCustomerGatewayResponse>
<CustomerGatewayId>cgw-bp1aw0a5nfff03xp1pcqc</CustomerGatewayId>
<RequestId>185E81B1-3916-4667-B48F-C52409B33F2B</RequestId>
<CreateTime>1493363486000</CreateTime>
<IpAddress>100.1.1.2</IpAddress>
</CreateCustomerGatewayResponse>
```

JSON format

```
{
"CustomerGatewayId":"cgw-bp1jrawp82av6bws9h2ut",
"CreateTime":1493363599000,
"RequestId":"D32B3C26-6C6C-4988-93E9-D2A6444CE6AE",
"IpAddress":"100.1.1.2"
}
```

DescribeCustomerGateway

Description

Query the list of customer gateways.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeCustomerGateways
RegionId	String	yes	The region of the customer gateway. You can obtain the region ID by calling the DescribeRegions API.
CustomerGatewayId	String	No	The ID of the customer gateway.
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.
CustomerGateways	JSON string	The list of queried customer gateways.
TotalCount	Integer	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	Integer	The number of entries on the current page.
CustomerGateway **objects**		

Name	Type	Description
CustomerGatewayId	String	The ID of the customer gateway.
Name	String	The name of the customer gateway.
Description	String	The description of the customer gateway.
IpAddress	String	The IP address of the customer gateway.
CreateTime	Long	The creation time of the customer gateway.

Error codes

See VPC API Error Center.

Examples

Request example

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

Response example

XML format

```
<DescribeCustomerGatewaysResponse>
<PageNumber>1</PageNumber>
<TotalCount>3</TotalCount>
<PageSize>10</PageSize>
<RequestId>5BE01CD7-5A50-472D-AC14-CA181C5C03BE</RequestId>
<CustomerGateways>
<CustomerGateway>
<Name>test</Name>
<CustomerGatewayId>cgw-bp1pvpl9r9adju6l5nxck</CustomerGatewayId>
<CreateTime>1492747187000</CreateTime>
<IpAddress>139.196.32.167</IpAddress>
</CustomerGateway>
</CustomerGateways>
</DescribeCustomerGatewaysResponse>
```

JSON format


```
{
"PageNumber": 1,
"TotalCount": 3,
"PageSize": 10,
"RequestId": "E82612A9-CB90-4D7E-B394-1DB7F6509B29",
"CustomerGateways": {
"CustomerGateway": [
{
"Name": "test",
"CustomerGatewayId": "cgw-bp1pvpl9r9adju6l5nxck",
"CreateTime": 1492747187000,
"IpAddress": "139.196.32.167"
}
]
}
}
```


DescribeCustomerGateway

Description

Query the detailed information of a customer gateway.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeCustomerGateway
RegionId	String	Yes	The region of the customer gateway. You can obtain the region ID by calling the DescribeRegions API.
CustomerGatewayId	String	Yes	The ID of the customer gateway.

Response parameters

Name	Type	Description
CustomerGatewayId	String	The ID of the customer gateway.
Name	String	The name of the customer gateway.
Description	String	The description of the customer gateway.
IpAddress	String	The IP address of the customer gateway.
CreateTime	Long	The creation time of the customer gateway.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DescribeCustomerGateway
&RegionID=cn-beijing
&CustomerGatewayId=cgw-bp1pvpl9r9adju6l5nxck
&<CommonParameters>
```

Response example

XML format

```
<DescribeCustomerGatewayResponse>
<Name>test</Name>
<CustomerGatewayId>cgw-bp1pvpl9r9adju6l5nxck</CustomerGatewayId>
<CreateTime>1492747187000</CreateTime>
<RequestId>99506ECB-218F-45A5-AE8E-79518451F615</RequestId>
<IpAddress>139.196.32.167</IpAddress>
</DescribeCustomerGatewayResponse>
```

JSON format

```
{
"CustomerGatewayId": "cgw-bp1pvpl9r9adju6l5nxck",
"Name": "test",
"RequestId": "A0457BC9-6C0F-4437-AB9D-FB2EABC1D6A2",
"CreateTime": 1492747187000,
"IpAddress": "139.196.32.167"
}
```


DeleteCustomerGateway

Description

Delete a customer gateway.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DeleteCustomerGateway
RegionId	String	Yes	The region of the customer gateway. You can obtain the region ID by calling the DescribeRegions API.
CustomerGatewayId	Integer	Yes	The ID of the customer gateway.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DeleteCustomerGateway
&RegionId=cn-hangzhou
&CustomerGatewayId=cgw-bp1pvpl9r9adju6l5nxck
&<CommonParameters>
```

Response example

XML format

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

JSON format

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

ModifyCustomerGatewayAttribute

Description

Modify the name and description of a customer gateway.

Request parameters

Name	Type	Required	Description

Action	String	Yes	The action to perform. Valid value: ModifyCustomerGatewayAttribute
RegionId	String	Yes	The region of the customer gateway. You can obtain the region ID by calling the DescribeRegions API.
CustomerGatewayId	String	Yes	The ID of the customer gateway.
Name	String	No	The name of the customer gateway. - The name must start with an English letter, but cannot start withhttp:// or https://. - The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens.
Description	String	No	The description of the customer gateway. - The description must start with English letters, but cannot start with http:// or https://. - The

			description can contain from 2 to 256 characters.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
CustomerGatewayId	String	The ID of the customer gateway.
Name	String	The name of the customer gateway.
Description	String	The description of the customer gateway.
IpAddress	String	The IP address of the customer gateway.
CreateTime	Long	The creation time of the customer gateway.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyCustomerGatewayAttribute
&RegionID=cn-beijing
&CustomerGatewayId=cgw-bp1pvpl9r9adju6l5nxck
&<CommonParameters>
```

Response example

XML format

```
<ModifyCustomerGatewayAttributeResponse>
```

```
<CustomerGatewayId>cgw-bp1pvpl9r9adju6l5nxck</CustomerGatewayId>
<RequestId>E61293C8-AF07-4E87-A272-542680038F93</RequestId>
<CreateTime>1492747187000</CreateTime>
<IpAddress>139.196.32.167</IpAddress>
</ModifyCustomerGatewayAttributeResponse>
```

JSON format

```
{
"CustomerGatewayId":"cgw-bp1pvpl9r9adju6l5nxck",
"RequestId":"8AA5CE21-2E6A-4530-BDF5-F055849476E6",
"CreateTime":1492747187000,
"IpAddress":"139.196.32.167"
}
```

CreateVpnConnection

Description

Create an IPsec connection.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: CreateVpnConnection
RegionId	String	Yes	The region of the IPsec connection. You can obtain the region ID by calling the DescribeRegions API.
Token	String	No	A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be

			unique. It cannot exceed 64 ASCII characters. For more information, see How to ensure idempotence.
CustomerGatewayId	String	Yes	The ID of the customer gateway.
VpnGatewayId	String	Yes	The ID of the VPN gateway.
Name	String	No	The name of the IPsec connection. - The name must start with an English letter, but cannot start withhttp:// or https://. - The name can contain from 2 to 100 characters including a-z, A-Z, 0-9, underlines, and hyphens.
LocalSubnet	String	Yes	The CIDR block of the VPC to be connected with the local data center. This parameter is used for phase-two negotiation. Separate multiple CIDR blocks by commas (,). For example, 192.168.1.0/24,192.168.2.0/24.
RemoteSubnet	String	Yes	The CIDR block of the local data center. This parameter is used for phase-two

			negotiation. Separate multiple CIDR blocks by commas (,). For example, 192.168.3.0/24,192.168.4.0/24.
EffectImmediately	Boolean	No	Whether to delete a successfully negotiated IPsec tunnel and initiate a negotiation again. Valid value: - true: Negotiate immediately after the configuration is completed. - false (default): Negotiate when there is incoming traffic.
IkeConfig	JSON string	No	The configurations of phase-one negotiation: - IkeConfig.Psk: 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

			mamually specify the key. - IkeConfig.IkeVersion: The version of the IKE protocol. Valid value: ikev1 | ikev2. Default value: ikev1 - <p>IkeConfig. IkeMode: The negotiation mode of IKE V1. Valid value: main (main mode) | aggressive (aggressive mode). Default value: main - IkeConfig. IkeEncAlg: The encryption algorithm of phase-one negotiation. Valid value: aes | aes192 | aes256 | des | 3des. Valid value: aes - IkeConfig.IkeAuthAlg: The authentication algorithm of phase-one negotiation.

			Valid value: md5 | sha1. Default value: sha1 - IkeConfig.IkePfs: The Diffie-Hellman key exchange algorithm used by phase-one negotiation. Valid value: group1 | group2 | group5 | group14 | group24. Default value: group2 - IkeConfig.IkeLifetime: The SA lifecycle as the result of phase-one negotiation. The valid value of n is [0, 86400], the unit is second and the default value is 86400. - IkeConfig.LocalIdIPsec: The identification of the VPN gateway. This parameter can contain

			up to 100 characters and the default value is the public IP address of the VPN gateway. - IkeConfig.RemoteId: The identification of the customer gateway. This parameter can contain up to 100 characters and the default value is the public IP address of the customer gateway.
IpsecConfig	JSON string	No	The configurations of phase-two negotiation: - IpsecConfig.IpsecEncAlg: The encryption algorithm of phase-two negotiation. Valid value: aes | aes192 | aes256 | des | 3des. Default value: aes - IpsecConfig.IpsecAuthAlg:

			The authentication algorithm of phase-two negotiation. Valid value: md5 | sha1. Default value: sha1 - IpsecConfig. IpsecPfs: The Diffie-Hellman key exchange algorithm used by phase-two negotiation. Valid value: group1 | group2 | group5 | group14 | group24. Default value: group2 - IpsecConfig. IpsecLifetime: 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.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
VpnConnectionId	String	The ID of the IPsec connection.
CreateTime	Long	The creation time of the IPsec connection.
Name	String	The name of the IPsec connection.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=CreateVpnConnection
&RegionID=cn-beijing
&CustomerGatewayId=cgw-bp1jrawp82av6bws9h2ut
&VpnGatewayId=vpn-bp1q8bgx4xnkm2ogj0fiu
&LocalSubnet=10.1.1.0/24
&RemoteSubnet=192.1.1.0/24
&<CommonParameters>
```

Response example

XML format

```
<CreateVpnConnectionResponse>
<VpnConnectionId>vco-bp1bbi27hojx80nck9k1i</VpnConnectionId>
<CreateTime>1493363928000</CreateTime>
</CreateVpnConnectionResponse>
```

JSON format

```
{
"VpnConnectionId":"vco-bp1bbi27hojx80nck9k1i",
"CreateTime":1493363928000,
```

```
}
```

DescribeVpnConnection

Description

Query the list of IPsec connections.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeVpnConnections
RegionId	String	Yes	The region of the IPsec connection. You can obtain the region ID by calling the DescribeRegions API.
VpnGatewayId	String	No	The ID of the VPN gateway.
CustomerGatewayId	String	No	The ID of the customer gateway.
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.
VpnConnections	JSON string	A list of IPsec connections.
TotalCount	Integer	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	Integer	The number of entries on the current page.
VPNConnection **objects**		
VpnConnectionId	String	The ID of the IPsec connection.
CustomerGatewayId	String	The ID of the customer gateway.
VpnGatewayId	String	The ID of the VPN gateway.
Name	String	The name of the IPsec connection.
LocalSubnet	String	The CIDR block of the VPC.
RemoteSubnet	String	The CIDR block of the local data center.
CreateTime	Long	The creation time of the IPsec connection.
IkeConfig	JSON string	Configurations of phase-one negotiation.
IpsecConfig	JSON string	Configurations of phase-two negotiation.
Status	String	The status of IPsec connection. - ike_sa_not_established: The phase-one negotiation fails. - ike_sa_established: The phase-one negotiation succeeds. - ipsec_sa_not_established: The phase-two negotiation fails. - ipsec_sa_established: The phase-two negotiation succeeds.

Error codes

See VPC API Error Center.

Examples

Request example

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

Response example

XML format

```
<DescribeVpnConnectionsResponse>
<PageNumber>1</PageNumber>
<VpnConnections>
<VpnConnection>
<Name>vpn connection test</Name>
<CustomerGatewayId>cgw-bp1pvpl9r9adju6l5nxck</CustomerGatewayId>
<RemoteSubnet>2.2.2.0/24</RemoteSubnet>
<IpsecConfig>
<IpsecLifetime>86400</IpsecLifetime>
<IpsecAuthAlg>sha1</IpsecAuthAlg>
<IpsecPfs>group2</IpsecPfs>
<IpsecEncAlg>aes</IpsecEncAlg>
</IpsecConfig>
<EffectImmediately>true</EffectImmediately>
<VpnGatewayId>vpn-bp1q8bgx4xnkm2ogj0fiu</VpnGatewayId>
<CreateTime>1492753817000</CreateTime>
<VpnConnectionId>vco-bp10lz7aejumd2vxoqgev</VpnConnectionId>
<status>ipsec_sa_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>pgw6dy7d1i8in7x5</Psk>
<IkeMode>main</IkeMode>
<IkeLifetime>86400</IkeLifetime>
<IkeVersion>ikev1</IkeVersion>
<LocalId>116.62.69.64</LocalId>
</IkeConfig>
</VpnConnection>
</VpnConnections>
<TotalCount>1</TotalCount>
<PageSize>10</PageSize>
<RequestId>3F96DAF2-8A69-4E84-824A-E16E22308703</RequestId>
</DescribeVpnConnectionsResponse>
```

JSON format


```
{
"PageNumber": 1,
"VpnConnections": {
"VpnConnection": [
{
"Name": "vpn connection test",
"CustomerGatewayId": "cgw-bp1pvpl9r9adju6l5nxck",
"RemoteSubnet": "2.2.2.0/24",
"IpsecConfig": {
"IpsecLifetime": 86400,
"IpsecAuthAlg": "sha1",
"IpsecPfs": "group2",
"IpsecEncAlg": "aes"
},
"EffectImmediately": true,
"VpnGatewayId": "vpn-bp1q8bgx4xnkm2ogj0fiu",
"CreateTime": 1492753817000,
"VpnConnectionId": "vco-bp10lz7aejumd2vxoqgev",
"status": "ipsec_sa_established",
"LocalSubnet": "1.1.1.0/24,1.1.2.0/24",
"IkeConfig": {
"IkeEncAlg": "aes",
"RemoteId": "139.196.32.167",
"IkePfs": "group2",
"IkeAuthAlg": "sha1",
"Psk": "pgw6dy7d1i8in7x5",
"IkeMode": "main",
"IkeLifetime": 86400,
"IkeVersion": "ikev1",
"LocalId": "116.62.69.64"
}
}
]
},
"TotalCount": 1,
"PageSize": 10,
"RequestId": "54A4B3D0-DF4D-4C54-B8DC-5DC8DD49C939"
}
```


DescribeVpnConnection

Description

Query the detailed information of an IPsec connection.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeVpnConnection
RegionId	String	Yes	The region of the IPsec connection. You can obtain the region ID by calling the DescribeRegions API.
VpnConnectionId	String	Yes	The ID of the IPsec connection.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
VpnConnectionId	String	The ID of the IPsec connection.
CustomerGatewayId	String	The ID of the customer gateway.
VpnGatewayId	String	The ID of the VPN gateway.
Name	String	The name of the IPsec connection.
LocalSubnet	String	The CIDR block of the VPC.
RemoteSubnet	String	The CIDR block of the local data center.
CreateTime	Long	The creation time of the IPsec connection.
IkeConfig	JSON string	Configurations of phase-one negotiation.
IpsecConfig	JSON string	Configurations of phase-two negotiation.
Status	String	The status of IPsec connection. - ike_sa_not_established: The phase-one negotiation fails. - ike_sa_established: The phase-one negotiation

		succeeds. - ipsec_sa_not_established: The phase-two negotiation fails. - ipsec_sa_established: The phase-two negotiation succeeds.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DescribeVpnConnection
&RegionID=cn-beijing
&VpnConnectionId=vco-bp10lz7aejumd2vxoqgev
&<CommonParameters>
```

Response example

XML format

```
<DescribeVpnConnectionResponse>
<PageNumber>1</PageNumber>
<VpnConnections>
<VpnConnection>
<Name>c2</Name>
<CustomerGatewayId>cgw-bp1wl8dtz3auwlavwhgcw</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-bp1yfrjxn4d5t63tbqq70</VpnGatewayId>
<CreateTime>1519391420000</CreateTime>
<VpnConnectionId>vco-bp1w3m1p23iftycvseuc2</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>
</DescribeVpnConnectionResponse>
```

JSON format

```
{
"PageNumber": 1,
"VpnConnections": {
"VpnConnection": [
{
"Name": "c2",
"CustomerGatewayId": "cgw-bp1wl8dtz3auwlavwhgcw",
"Status": "ike_sa_not_established",
"RemoteSubnet": "192.168.0.0/16",
"IpsecConfig": {
"IpsecLifetime": 86400,
"IpsecAuthAlg": "md5",
"IpsecPfs": "group2",
"IpsecEncAlg": "aes"
},
"EffectImmediately": false,
"VpnGatewayId": "vpn-bp1yfrjxn4d5t63tbqq70",
"CreateTime": 1519391420000,
"VpnConnectionId": "vco-bp1w3m1p23iftycvseuc2",
"LocalSubnet": "172.16.0.0/12",
"IkeConfig": {
"IkeEncAlg": "aes",
"RemoteId": "47.97.176.95",
"IkePfs": "group2",
"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"
}
```


ModifyVpnConnectionAttribute

Description

Modify configurations of an IPsec connection.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: CreateVpnConnection
RegionId	String	Yes	The region of the IPsec connection. You can query the region ID in Regions and zones or by calling the DescribeRegions API.
VpnConnectionId	String	Yes	The ID of the IPsec connection.
Name	String	No	The name of the IPsec connection. - The name can contain [2,100] characters, numbers, underlines, and hyphens. - The name must start

			with English letters, but cannot start with http:// or https://.
LocalSubnet	String	No	The CIDR block of the VPC to be connected with the local data center. This parameter is used for phase-two negotiation. Separate multiple CIDR blocks by commas (,). For example, 192.168.1.0/24,192.168.2.0/24.
RemoteSubnet	String	No	The CIDR block of the local data center. This parameter is used for phase-two negotiation. Separate multiple CIDR blocks by commas (,). For example, 192.168.3.0/24,192.168.4.0/24.
EffectImmediately	Boolean	No	Whether to delete a successfully negotiated IPsec tunnel and initiate a negotiation again. Valid value: - true: Negotiate immediately after the configuration is completed. - false (default): Negotiate when there is incoming traffic.
IkeConfig	JSON string	No	The configurations of phase-one negotiation:

			- IkeConfig.Psk: 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 mamually specify the key. - IkeConfig.IkeVersion: The version of the IKE protocol. Valid value: ikev1 | ikev2. Default value: ikev1 - IkeConfig.IkeMode: The negotiation mode of IKE V1. Valid value: main (main mode) | aggressive (aggressive mode). Default value: main - IkeConfig.IkeEncAlg: The

			encryption algorithm of phase-one negotiation. Valid value: aes | aes192 | aes256 | des | 3des. Valid value: aes - IkeConfig.IkeAuthAlg: The authentication algorithm of the phase-one negotiation. Valid value: md5 | sha1. Default value: sha1 - IkeConfig.IkePfs: The Diffie-Hellman key exchange algorithm used by the phase-one negotiation. Valid value: group1 | group2 | group5 | group14 | group24. Default value: group2 - IkeConfig.IkeLifetime: The SA lifecycle as the result of phase-one

			negotiation. The valid value of n is [0, 86400], the unit is second and the default value is 86400. - IkeConfig.LocalIdIPsec: The identification of the VPN gateway. This parameter can contain up to 100 characters and the default value is the public IP address of the VPN gateway. - IkeConfig.RemoteId: The identification of the customer gateway. This parameter can contain up to 100 characters and the default value is the public IP address of the customer gateway.
IpsecConfig	JSON string	No	The configurations of phase-two

			negotiation: - IpsecConfig.IpsecEncAlg: The encryption algorithm of phase-two negotiation. Valid value: aes | aes192 | aes256 | des | 3des. Default value: aes - IpsecConfig.IpsecAuthAlg: The authentication algorithm of phase-two negotiation. Valid value: md5 | sha1. Default value: sha1 - IpsecConfig.IpsecPfs: The Diffie-Hellman key exchange algorithm used by phase-two negotiation. Valid value: group1 | group2 | group5 | group14 | group24. Default value: group2 - IpsecConfig.IpsecLifetime:

			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.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
VpnConnectionId	String	The ID of the IPsec connection.
CustomerGatewayId	String	The ID of the customer gateway.
VpnGatewayId	String	The ID of the VPN gateway.
Name	String	The name of the IPsec connection.
LocalSubnet	String	The CIDR block of the VPC.
RemoteSubnet	String	The CIDR block of the local data center.
CreateTime	Long	The creation time of the IPsec connection.
IkeConfig	JSON string	Configurations of phase-one negotiation.
IpsecConfig	JSON string	Configurations of phase-two negotiation.

Error codes

For more information, see VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyVpnConnectionAttribute
&RegionID=cn-beijing
&VpnConnectionId=vco-bp10lz7aejumd2vxoqgev
&<CommonParameters>
```

Response example

XML format

```
<ModifyVpnConnectionAttributeResponse>
<Name>vpn connection test</Name>
<CustomerGatewayId>cgw-bp1pvpl9r9adju6l5nxck</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-bp10lz7aejumd2vxoqgev</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>pgw6dy7d1i8in7x5</Psk>
<IkeMode>main</IkeMode>
<IkeLifetime>86400</IkeLifetime>
<IkeVersion>ikev1</IkeVersion>
<LocalId>116.62.69.64</LocalId>
</IkeConfig>
</ModifyVpnConnectionAttributeResponse>
```

JSON format

```
{
"Name": "vpn connection test",
"CustomerGatewayId": "cgw-bp1pvpl9r9adju6l5nxck",
"RemoteSubnet": "2.2.2.0/24",
"IpsecConfig": {
"IpsecLifetime": 86400,
```

```
"IpsecAuthAlg": "sha1",
"IpsecPfs": "group2",
"IpsecEncAlg": "aes"
},
"EffectImmediately": false,
"VpnGatewayId": "vpn-bp1q8bgx4xnkm2ogj0fiu",
"CreateTime": 1492753817000,
"VpnConnectionId": "vco-bp10lz7aejumd2vxoqgev",
"RequestId": "7DB79D0C-5F27-4AB5-995B-79BE55102F90",
"LocalSubnet": "1.1.1.0/24,1.1.2.0/24",
"IkeConfig": {
"IkeEncAlg": "aes",
"RemoteId": "139.196.32.167",
"IkePfs": "group2",
"IkeAuthAlg": "sha1",
"Psk": "pgw6dy7d1i8in7x5",
"IkeMode": "main",
"IkeLifetime": 86400,
"IkeVersion": "ikev1",
"LocalId": "116.62.69.64"
}
}
```


DeleteVpnConnection

Description

Delete an IPsec connection.

Note: After an IPsec connection is deleted, the VPC and the local data center is disconnected.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DeleteVpnConnection
RegionId	String	Yes	The region of the IPsec connection. You can obtain the region ID by calling the DescribeRegions API.

VpnConnectionId	Integer	Yes	The ID of the IPsec connection.

Response parameters

Name	Description	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DeleteVpnConnection
&RegionId=cn-hangzhou
&VpnConnectionId=vco-bp10lz7aejumd2vxoqgev
&<CommonParameters>
```

Response example

XML format

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

JSON format

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

DownloadVpnConnectionConfig

Description

Obtain the configuration information of an IPsec connection.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DownloadVpnConnectionConfig
RegionId	String	Yes	The region of the IPsec connection. You can obtain the region ID by calling the DescribeRegions API.
VpnConnectionId	Integer	Yes	The ID of the IPsec connection.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
VpnConnectionConfig	JSON string	Configurations of the IPsec connection.
VPNConnection **objects**		
CustomerGatewayId	String	The ID of the customer gateway.
VpnGatewayId	String	The ID of the VPN gateway.
Local	String	The identification of the IPsec VPN gateway.
LocalSubnet	String	The CIDR block of the VPC.
RemoteSubnet	String	The CIDR block of the local data center.
Remote	String	The identification of the customer gateway.
IkeConfig	JSON string	Configurations of phase-one

		negotiation.
IpsecConfig	JSON string	Configurations of phase-two negotiation.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DownloadVpnConnectionConfig
&RegionId=cn-hangzhou
&VpnConnectionId=vco-bp10lz7aejumd2vxoqgev
&<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>
<Psk>pgw6dy7d1i8in7x5</Psk>
<IkeMode>main</IkeMode>
<IkeLifetime>86400</IkeLifetime>
<IkeVersion>ikev1</IkeVersion>
<LocalId>139.196.32.167</LocalId>
</IkeConfig>
</VpnConnectionConfig>
```

```
</DownloadVpnConnectionConfigResponse>
```

JSON format

```
{
"RequestId": "0C68048B-0F70-40DA-B8AE-1B79B5CF62E3",
"VpnConnectionConfig": {
"RemoteSubnet": "1.1.1.0/24,1.1.2.0/24",
"Local": "139.196.32.167",
"IpsecConfig": {
"IpsecLifetime": 86400,
"IpsecAuthAlg": "sha1",
"IpsecPfs": "group2",
"IpsecEncAlg": "aes"
},
"Remote": "116.62.69.64",
"LocalSubnet": "2.2.2.0/24",
"IkeConfig": {
"IkeEncAlg": "aes",
"IkePfs": "group2",
"RemoteId": "116.62.69.64",
"IkeAuthAlg": "sha1",
"Psk": "pgw6dy7d1i8in7x5",
"IkeMode": "main",
"IkeLifetime": 86400,
"IkeVersion": "ikev1",
"LocalId": "139.196.32.167"
}
}
}
```

CreateSslVpnServer

Description

Create an SSL-VPN server.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: CreateSslVpnServer

RegionId	String	Yes	The region of the VPN gateway. You can obtain the region ID by calling the DescribeRegions API.
VpnGatewayId	String	Yes	The ID of the VPN gateway.
LocalSubnet	String	Yes	The CIDR block to be accessed by the client through the SSL-VPN connection. 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. - The CIDR block of the cloud service such as RDS and OSS.
ClientIpPool	String	Yes	The CIDR block from which access 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**.
Proto	String	No	The protocol used by the SSL-VPN server. Valid value: UDP(default) |TCP
Port	Integer	No	The port used by the SSL-VPN server. The default value is 1194. The following ports cannot be used: [22, 2222, 22222, 9000, 9001, 9002, 7505, 80, 443, 53, 68, 123, 4510, 4560, 500, 4500].
Cipher	String	No	The encryption algorithm used by the SSL-VPN server. Valid value: AES-128-CBC (default)| AES-192-CBC | AES-256-CBC | none
Compress	Boolean	No	Specify whether to compress the communication. Valid value: true (default) | false
Name	String	No	The name of the SSL-VPN server. - The name must start with an English letter, but cannot start withhttp:// or https://. - The name can contain from

			2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
SslVpnServerId	String	The ID of the SSL-VPN server.
Name	String	The name of the SSL-VPN server.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=CreateSslVpnServer
&RegionID=cn-beijing
&VpnGatewayId=vpn-bp1q8bgx4xnkm2ogj0fiu
&LocalSubnet=10.10.10.0/24
&ClientIpPool=10.20.20.0/24
&Name=test
&<CommonParameters>
```

Response example

XMLformat

```
<?xml version="1.0" encoding="UTF-8" ?>
<CreateSslVpnServerResponse>
<RequestId>E98A9651-7098-40C7-8F85-C818D1EBBA85</RequestId>
<SslVpnServerId>vss-bp18q7hzj6largv4vk2fe</SslVpnServerId>
```

```
<Name>test</Name>
</CreateSslVpnServerResponse>
```

JSONformat

```
{
"RequestId": "E98A9651-7098-40C7-8F85-C818D1EBBA85",
"SslVpnServerId": "vss-bp18q7hzj6largv4vk2fe",
"Name": "test"
}
```

DescribeSslVpnServers

Description

Query the list of SSL-VPN servers.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeSslVpnServers
RegionId	String	Yes	The region of the SSL-VPN server. You can obtain the region ID by calling the DescribeRegions API.
VpnGatewayId	String	No	The ID of the VPN gateway.
SslVpnServerId	String	No	The ID of the SSL-VPN server.
Name	String	No	The name of the SSL-VPN server.
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
SslVpnServers	JSON string	A list of SSL-VPN servers.
TotalCount	Integer	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	Integer	The number of entries on the current page.
SslVpnServers **objects**		
Name	**Type**	**Description**
RegionId	String	The region of the SSL-VPN server.
SslVpnServerId	String	The ID of the SSL-VPN server.
VpnGatewayId	String	The ID of the VPN gateway instance.
Name	String	The name of the SSL-VPN server.
CLientIpPool	Long	The IP address pool of the client.
LocalSubnet	Long	The expiration time of the VPN gateway.
Proto	String	The protocol used by the SSL-VPN server.
Port	Integer	The port used by the SSL-VPN server.
Cipher	String	The encryption algorithm used.
Compress	Boolean	Whether to compress.
CreateTime	String	The time of creation.
Connections	Integer	The number of current connections.
MaxConnections	Integer	The maximum number of connections.
InternetIp	String	The public IP.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DescribeSslVpnServers
&RegionID=cn-beijing
&VpnGatewayId=vpn-bp1q8bgx4xnkm2ogj0fiu
&<CommonParameters>
```

Response example

XML format

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


DeleteSslVpnServer

Description

Delete an SSL-VPN server.

Request parameters

name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DeleteSslVpnServer
RegionId	String	Yes	The region of the SSL-VPN server. You can obtain the region ID by calling the DescribeRegions API.

SslVpnServerId	String	Yes	The ID of the SSL-VPN server.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DeleteSslVpnServer
&RegionId=cn-hangzhou
&SslVpnServerId=vss-bp18q7hzj6largv4vk2fe
&<CommonParameters>
```

Response example

XML format

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

JSON format

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

ModifySslVpnServer

Description

Modify the configurations of an SSL-VPN server.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: ModifySslVpnServer
RegionId	String	Yes	The region of the VPN gateway. You can obtain the region ID by calling the DescribeRegions API.
VpnGatewayId	String	Yes	The ID of the VPN gateway.
LocalSubnet	String	Yes	The CIDR block to be accessed by the client through the SSL-VPN connection. 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. - The CIDR block of the

			cloud service such as RDS and OSS.
ClientIpPool	String	Yes	The CIDR block from which access 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**.
Proto	String	No	The protocol used by the SSL-VPN server. Valid value: UDP(default) |TCP
Port	Integer	No	The port used by the SSL-VPN server. The default value is 1194. The following ports cannot be used: [22, 2222, 22222, 9000, 9001, 9002, 7505, 80, 443, 53, 68, 123, 4510, 4560, 500, 4500].
Cipher	String	No	The encryption algorithm used by the SSL-VPN server. Valid value: AES-128-CBC (default)| AES-192-CBC | AES-256-CBC | none
Compress	Boolean	No	Specify whether to compress the communication. Valid value: true

			(default) | false
Name	String	No	The name of the SSL-VPN server. - The name must start with an English letter, but cannot start withhttp:// or https://. - The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
RegionId	String	The region of the SSL-VPN server.
SslVpnServerId	String	The ID of the SSL-VPN server.
VpnGatewayId	String	The ID of the VPN gateway instance.
Name	String	The name of the SSL-VPN server.
CLientIpPool	Long	The IP address pool of the client.
LocalSubnet	Long	The expiration time of the VPN gateway.
Proto	String	The protocol used by the SSL-VPN server.
Port	Integer	The port used by the SSL-VPN server.
Cipher	String	The encryption algorithm used.
Compress	Boolean	Whether to compress.

CreateTime	String	The time of creation.
Connections	Integer	The number of current connections.
MaxConnections	Integer	The maximum number of connections.
InternetIp	String	The public IP.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifySslVpnServer
&RegionID=cn-beijing
&VpnGatewayId=vpn-bp1q8bgx4xnkm2ogj0fiu
&LocalSubnet=10.20.20.0/24
&CLientIpPool=10.30.30.0/24
&<CommonParameters>
```

Response example

XML format

```
<ModifySslVpnServerResponse>
<PageNumber>1</PageNumber>
<TotalCount>1</TotalCount>
<PageSize>10</PageSize>
<SslVpnServers>
<SslVpnServer>
<RegionId>cn-hanghzou</RegionId>
<SslVpnServerId>vss-bp18q7hzj6largv4vk2fe</SslVpnServerId>
<VpnGatewayId>vpn-bp1q8bgx4xnkm2ogj0fiu</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",
"PageSize": "10",
"SslVpnServers": {
"SslVpnServer": {
"RegionId": "cn-hanghzou",
"SslVpnServerId": "vss-bp18q7hzj6largv4vk2fe",
"VpnGatewayId": "vpn-bp1q8bgx4xnkm2ogj0fiu",
"Name": "test",
"CLientIpPool": "10.30.30.0/24",
"LocalSubnet": "10.20.20.0/24",
"Proto": "UDP",
"Port": "1194",
"Cipher": "AES-128-CBC",
"Compress": "true",
"CreateTime": "1492753580000",
"Connections": "0",
"MaxConnections": "5",
"InternetIp": "47.98.xx.xx"
}
},
"RequestId": "DF11D6F6-E35A-41C3-9B20-6FC8A901FE65"
}
```

CreateSslVpnClientCert

Description

Create an SSL-VPN client certificate.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform.

			Valid value: CreateSslVpnClientCert
RegionId	String	Yes	The region of the VPN gateway. You can obtain the region ID by calling the DescribeRegions API.
SslVpnServerId	String	Yes	The ID of the SSL-VPN server.
Name	String	No	The name of the client certificate. - The name must start with an English letter, but cannot start withhttp:// or https://. - The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
SslVpnClientCertId	String	The ID of the client certificate.
Name	String	The name of the client certificate.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=CreateSslVpnClientCert
&RegionId=cn-hangzhou
&SslVpnServerId=vss-bp18q7hzj6largv4vk2fe
&<CommonParameters>
```

Response example

XML format

```
<?xml version="1.0" encoding="UTF-8" ?>
<CreateSslVpnClientCertResponse>
<SslVpnClientCertId>vsc-bp1n8wcf134yl0osrcg98</SslVpnClientCertId>
<RequestId>606998F0-B94D-48FE-8316-ACA81BB230DA</RequestId>
</CreateSslVpnClientCertResponse>
```

JSON format

```
{
"SslVpnClientCertId": "vsc-bp1n8wcf134yl0osrcg98",
"RequestId": "606998F0-B94D-48FE-8316-ACA81BB230DA"
}
```

DescribeSslVpnClientCerts

Description

Query the list of SSL-VPN client certificates.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform.

			Valid value: DescribeSslVpnClientCerts
RegionId	String	Yes	The region of the VPN gateway. You can obtain the region ID by calling the DescribeRegions API.
SslVpnServerId	String	No	The ID of the SSL-VPN client certificate.
Name	String	No	The name of the SSL-VPN client certificate.
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.
SslVpnClientCertKeys	JSON string	The list of SSL-VPN client certificates.
TotalCount	Integer	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	Integer	The number of entries on the current page.
SslVpnClientCertKeys objects		
Name	**Type**	**Description**
RegionId	String	The region of the VPN gateway.
SslVpnClientCertId	String	The ID of the SSL-VPN client certificate.
Name	String	The name of the SSL-VPN client certificate.
CreateTime	Long	The time of creation.
EndTime	Long	The expiration time of the client

		certificate.
Status	String	The status of the client certificate. - expiring-soon: The certificate will expire after one week. - normal: normal. - expired: expired.

Error codes

See VPC API Error Center.

Examples

Request example

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

Response example

XMLformat

```
<?xml version="1.0" encoding="UTF-8" ?>
<DescribeCustomerGatewaysResponse>
<PageNumber>1</PageNumber>
<TotalCount>1</TotalCount>
<PageSize>10</PageSize>
<RequestId>5BE01CD7-5A50-472D-AC14-CA181C5C03BE</RequestId>
<SslVpnClientCertKeys>
<SslVpnClientCertKey>
<RegionId>cn-beijing</RegionId>
<SslVpnClientCertId>vsc-bp1n8wcf134yl0osrcg98</SslVpnClientCertId>
<Name>test</Name>
<CreateTime>1492747187000</CreateTime>
<EndTime>1494966335000</EndTime>
<Status>normal</Status>
</SslVpnClientCertKey>
</SslVpnClientCertKeys>
</DescribeCustomerGatewaysResponse>
```

JSONformat


```
{
"PageNumber": "1",
"TotalCount": "1",
"PageSize": "10",
"RequestId": "5BE01CD7-5A50-472D-AC14-CA181C5C03BE",
"SslVpnClientCertKeys": {
"SslVpnClientCertKey": {
"RegionId": "cn-beijing",
"SslVpnClientCertId": "vsc-bp1n8wcf134yl0osrcg98",
"Name": "test",
"CreateTime": "1492747187000",
"EndTime": "1494966335000",
"Status": "normal"
}
}
}
```


DeleteSslVpnClientCert

Description

Delete an SSL-VPN client certificate.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: ModifySslVpnClientCert
RegionId	String	Yes	The region of the VPN gateway. You can obtain the region ID by calling the DescribeRegions API.
SslVpnClientCertId	String	Yes	The ID of the SSL-VPN client.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DeleteSslVpnClientCert
&RegionID=cn-beijing
&SslVpnClientCertId=vsc-bp1n8wcf134yl0osrcg98
&<CommonParameters>
```

Response example

XML format

```
<?xml version="1.0" encoding="UTF-8" ?>
<DeleteSslVpnClientCertResponse>
<RequestId>606998F0-B94D-48FE-8316-ACA81BB230DA</RequestId>
</DeleteSslVpnClientCertResponse>
```

JSON format

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

ModifySslVpnClientCert

Description

Modify the name of an SSL-VPN client certificate.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: ModifySslVpnClientCert
RegionId	String	Yes	The region of the VPN gateway. You can obtain the region ID by calling the DescribeRegions API.
SslVpnClientCertId	String	Yes	The ID of the SSL-VPN client certificate.
Name	String	No	The name of the client certificate. - The name must start with an English letter, but cannot start withhttp:// or https://. - The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens.

Response parameters

name	Type	Description
RequestId	String	The ID of the request.
SslVpnClientCertId	String	The ID of the client certificate.
Name	String	The name of the client certificate.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifySslVpnClientCert
&RegionID=cn-beijing
&SslVpnClientCertId=vsc-bp1n8wcf134yl0osrcg98
&Name=test
&<CommonParameters>
```

Response example

XML format

```
<?xml version="1.0" encoding="UTF-8" ?>
<ModifySslVpnClientCertResponse>
<SslVpnClientCertId>vsc-bp1n8wcf134yl0osrcg98</SslVpnClientCertId>
<Name>test</Name>
<RequestId>606998F0-B94D-48FE-8316-ACA81BB230DA</RequestId>
</ModifySslVpnClientCertResponse>
```

JSON format

```
{
"SslVpnClientCertId": "vsc-bp1n8wcf134yl0osrcg98",
"Name": "test",
"RequestId": "606998F0-B94D-48FE-8316-ACA81BB230DA"
}
```

Global Acceleration

DescribeGlobalAccelerationInstances

Description

Query the list of Global Acceleration instances.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeGlobalAccelerationInstances
RegionId	String	Yes	The region of the Global Acceleration instance. You can obtain the region ID or by calling the DescribeRegions API.
GlobalAccelerationInstanceId	String	No	The ID of the Global Acceleration instance.
Name	String	No	The name of the Global Acceleration instance.
Status	String	No	The status of the Global Acceleration instance. Valid value: - Available: available - Inuse:

			allocated - Associating: binding - Unassociating: unbinding
ServiceLocation	String	No	The service area of the Global Acceleration instance. Valid value: - china-mainland: China Mainland - north-america: North America - asia-pacific: Asia Pacific - europe: Europe
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
GlobalAccelerationInstances	JSON string	A list of Global Acceleration instances. For more information, see GlobalAccelerationInstanceSetType.
TotalCount	Integer	The number of queried entries.
PageNumber	Integer	The current page number.

PageSize	Integer	The number of entries on the current page.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?action=DescribeGlobalAccelerationInstances
&RegionId=ap-southeast-1
&<CommonParameters>
```

Response example

JSON format

```
{
"GlobalAccelerationInstances": {
"GlobalAccelerationInstance": [
{
"AccelerationLocation": "china-mainland",
"BackendServers": {
"BackendServer": [
{
"RegionId": "cn-beijing",
"ServerId": "lb-2222222333333333",
"ServerIpAddress": "192.168.0.180",
"ServerType": "SlbInstance"
}
]
},
"Bandwidth": "10",
"ChargeType": "PrePaid",
"CreationTime": "2017-07-26T03:34:30Z",
"Description": "",
"ExpiredTime": "2017-08-26T16:00Z",
"GlobalAccelerationInstanceId": "ga-aabbccddaabb",
"InternetChargeType": "PayByBandwidth",
"IpAddress": "12.34.56.78",
"Name": "",
"OperationLocks": {
"LockReason": []
},
```

```
"RegionId": "cn-shanghai",
"ServiceLocation": "asia-pacific",
"Status": "InUse"
}
]
},
"PageNumber": 1,
"PageSize": 10,
"RequestId": "0487FCA3-E152-4726-8A17-25F69E03ADB0",
"TotalCount": 1
}
```


ModifyGlobalAccelerationInstanceAttributes

Description

Modify the name and description of a Global Acceleration instance.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: ModifyGlobalAccelerationInstanceAttributes
RegionId	String	Yes	The region of the Global Acceleration instance. You can obtain the region ID by calling the DescribeRegions API.
GlobalAccelerationInstanceId	String	Yes	The ID of the Global Acceleration instance.
Name	String	No	The name of the Global Acceleration instance. - The name must start with an

			English letter, but cannot start withhttp:// or https://. - The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens.
Description	String	No	The description of the Global Acceleration instance. - The description must start with English letters, but cannot start with http:// or https://. - The description can contain from 2 to 256 characters.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?action=ModifyGlobalAccelerationInstanceAttributes
&RegionId=ap-southeast-1
&GlobalAccelerationInstanceId=ga-t4nluhu6n4xxxxxxxxxx
&Name=AdjustName
&Description=ModifyDescription
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId": "BD5BCEE8-F62C-40C2-9AC3-89XXXXXXXXX"
}
```

ModifyGlobalAccelerationInstanceSpec

Description

Modify the bandwidth of a Global Acceleration instance.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: ModifyGlobalAccelerationInstanceSpec
RegionId	String	Yes	The region of the Global Acceleration instance. You can obtain the region ID by calling

			the DescribeRegions API.
GlobalAccelerationInstanceId	String	Yes	The ID of the Global Acceleration instance.
Bandwidth	Integer	Yes	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]

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?action=ModifyGlobalAccelerationInstanceSpec
&RegionId=ap-southeast-1
&GlobalAccelerationInstanceId=ga-t4nluhu6n4xxxxxxxxxx
&Bandwidth=20
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId": "BD5BCEE8-F62C-40C2-9AC3-89XXXXXXXXX"
}
```

DeleteGlobalAccelerationInstance

Description

Delete a Global Acceleration instance.

> **Note**: You must unbind backend servers from a Global Acceleration instance before deleting the Global Acceleration instance.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DeleteGlobalAccelerationInstance
RegionId	String	Yes	The region of the Global Acceleration instance. You can obtain the region ID by calling the DescribeRegions API.
GlobalAccelerationInstanceId	String	Yes	The ID of the Global Acceleration instance.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?action=DeleteGlobalAccelerationInstance
&RegionId=ap-southeast-1
&GlobalAccelerationInstanceId=ga-aabbccddaabb
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId": "E6E63B2A-9820-44A8-A359-9BB2DAEE6424"
}
```

AssociateGlobalAccelerationInstance

Description

Bind a Global Acceleration instance to a backend server.

Note the following before binding a Global Acceleration instance to a backend server:

- Only an ECS instance of the VPC network or an SLB instance of the VPC network can act as the backend server of a Global Acceleration instance.
- You can only bind a Global Acceleration instance to one backend server.
- You can bind multiple Global Acceleration instances to one backend server.
- The instance acting as the backend server and the Global Acceleration instance must belong to the same account.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: AssociateGlobalAccelerationInstance
RegionId	String	Yes	The region of the Global Acceleration instance. You can obtain the region ID by calling the DescribeRegions API.
GlobalAccelerationInstanceId	String	Yes	The ID of the Global Acceleration instance.
BackendServerRegionId	String	Yes	The region of the backend server, which must belong to the service area of the Global Acceleration instance.
BackendServerType	String	No	The type of the backend server. Valid values: - EcsInstance(default): ECS instance - SlbInstance: SLB instance
BackendServerId	String	Yes	The ID of the backend server.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=AssociateGlobalAccelerationInstance
&RegionId=ap-southeast-1
&GlobalAccelerationInstanceId=ga-aabbccddaabb
&BackendServerRegionId=ap-northeast-1
&BackendServerId=i-6we1ge5qfxxxxxx
&BackendServerType=EcsInstance
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId": "DDF2CC38-76C7-4000-909D-B2088158AEDA"
}
```

UnassociateGlobalAccelerationInstance

Description

Unbind a Global Acceleration instance from the associated backend server.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: UnassociateGlobalAccelerationInstance
RegionId	String	Yes	The region of the Global Acceleration

			instance. You can obtain the region ID by calling the DescribeRegions API.
GlobalAccelerationInstanceId	String	Yes	The ID of the Global Acceleration instance.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=UnassociateGlobalAccelerationInstance
&RegionId=ap-southeast-1
&GlobalAccelerationInstanceId=ga-t4nluhu6n417xxxxxxxx
&<CommonParameters>
```

Response example

JSON format

```
{
"RequestId": "BD5BCEE8-F62C-40C2-9AC3-89XXXXXXXXX"
}
```

DescribeServerRelatedGlobalAccelerationInst

ances

Description

Query Global Acceleration instances bound to a backend server.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeServerRelatedGlobalAccelerationInstances
RegionId	String	Yes	The region of the Global Acceleration instance. You can obtain the region ID by calling the DescribeRegions API.
ServerType	String	No	The type of the backend server. Valid value: - EcsInstance (default): ECS instance - SlbInstance: SLB instance
ServerId	String	Yes	The ID of the backend server.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

ServerRelatedGlobalAccelerationInstances	JSON string	A list of Global Acceleration instances. For more information, see ServerRelatedGlobalAccelerationInstanceSetType.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DescribeServerRelatedGlobalAccelerationInstances
&RegionId=ap-northeast-1
&ServerId=i-6wefye51xxxxxxxxxx
&<CommonParameters>
```

Response example

JSON format

```
{
"GlobalAccelerationInstances": {
"GlobalAccelerationInstance": [
{
"GlobalAccelerationInstanceId": "ga-t4nku6vv9xxxxxxxxx",
"IpAddress": "12.34.56.78",
"RegionId": "ap-southeast-1",
"ServerIpAddress": "172.24.52.234"
}
]
},
"RequestId": "A8252014-D8DE-4D85-AF35-AFEXXXXXXX"
}
```

Monitor APIs

DescribeEipMonitorData

Description

Query the monitoring information of EIP.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeEipMonitorData
AllocationId	String	Yes	The ID of the EIP instance.
StartTime	String	Yes	The start time to get data. This parameter is represented according to ISO8601 and uses the time of UTC+8. Format: YYYY-MM-DDThh:mm:ssZ. If ss is not 00, the next minute is automatically used as the start time.
EndTime	String	Yes	The end time of getting data. This parameter is represented according to ISO8601 and uses the time of UTC+8. Format: YYYY-MM-DDThh:mm:ssZ. If ss is not 00, the next minute is automatically used as the end time.

Period	Integer	No	The time length in seconds of each piece of monitoring data. The default value is 60. Valid value: [60, 300, 900, 3600] The value of (EndTime – StartTime)/ Period must be larger than 200, that is, up to 200 pieces of monitoring data are returned. If the value of (EndTime – StartTime) is smaller than 200, only the monitoring data at the start time is returned.

Return parameters

Name	Type	Description
RequestId	String	The ID of the request.
EipMonitorDatas	JSON string	An array of EIP monitoring data. For more information, see EipMonitorDataType.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DescribeEipMonitorData
&AllocationId=eip-2578g5v5a
&StartTime=2014-10-29T23:00:00Z
&EndTime=2014-10-30T08:00:00Z
&<CommonParameters>
```

Response example

XML format

```
<?xml version="1.0" encoding="UTF-8" ?>
<DescribeEipMonitorDataResponse>
<RequestId>C8B26B44-0189-443E-9816-D951F59623A9</RequestId>
<EipMonitorDatas>
<EipMonitorData>
<EipRX>122</EipRX>
<EipTX>343</EipTX>
<EipFlow>675</EipFlow>
<EipPackets>3434</EipPackets>
<EipBandwidth>10</EipBandwidth>
<TimeStamp>2010-01-21T09:50:23Z</TimeStamp>
</EipMonitorData>
</EipMonitorDatas>
</DescribeEipMonitorDataResponse>
```

JSON format

```
{
"RequestId": "C8B26B44-0189-443E-9816-D951F59623A9",
"EipMonitorDatas": {
"EipMonitorData": [
{
"EipRX": "122",
"EipTX": "343",
"EipFlow": "675",
"EipPackets": "3434",
"EipBandwidth": "10",
"IntranetFlow": 675,
"IntranetBandwidth": 10,
"TimeStamp": "2010-01-21T09:50:23Z"
}
]
}
}
```

Region APIs

DescribeRegions

Description

Query the list of regions.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeRegions

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
Regions	JSON string	An array of regions. For more information, see RegionType.

Error codes

See VPC API Error Center.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DescribeRegions
&<CommonParameters>
```

Response example

XML format

```
<?xml version="1.0" encoding="UTF-8" ?>
<DescribeRegionsResponse>
<RequestId>611CB80C-B6A9-43DB-9E38-0B0AC3D9B58F</RequestId>
<Regions>
<Region>
<RegionId>cn-hangzhou </RegionId>
</Region>
<Region>
<RegionId>cn-qingdao</RegionId>
</Region>
</Regions>
</DescribeRegionsResponse>
```

JSON format

```
{
"RequestId": "611CB80C-B6A9-43DB-9E38-0B0AC3D9B58F",
"Regions": {
"Region": [{
"RegionId": "cn-hangzhou "
},
{
"RegionId": "cn-qingdao"
}]
}
}
```

DescribeZones

Description

Query the list of zones in a region.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeZones

RegionId	String	Yes	The ID of the region. You can obtain the region ID by calling the DescribeRegions API.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
Zones	JSON string	An array of zones. For more information, see ZoneType.

Error codes

See VPC API Error Center.

Examples

Request example

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

Response example

XML format

```
<?xml version="1.0" encoding="UTF-8" ?>
<DescribeZonesResponse>
<Zones>
<Zone>
<AvailableResourceCreation>
<ResourceTypes>Instance</ResourceTypes>
<ResourceTypes>Disk</ResourceTypes>
</AvailableResourceCreation>
<LocalName></LocalName>
<ZoneId>cn-hangzhou-d</ZoneId>
```

```
<AvailableDiskCategories>
<DiskCategories>cloud</DiskCategories>
</AvailableDiskCategories>
</Zone>
<Zone>
<AvailableResourceCreation>
<ResourceTypes>Instance</ResourceTypes>
<ResourceTypes>Disk</ResourceTypes>
</AvailableResourceCreation>
<LocalName></LocalName>
<ZoneId>cn-hangzhou-b</ZoneId>
<AvailableDiskCategories>
<DiskCategories>cloud</DiskCategories>
</AvailableDiskCategories>
</Zone>
</Zones>
<RequestId>6DB97BCC-92BA-424D-A7C8-3F6486612BAE</RequestId>
</DescribeZonesResponse>
```

JSON format

```
{
"RequestId": "A347EF0E-BBCC-4EFA-BD79-27AA3ACFD1BF",
"Zones": {
"Zone": [
{
"AvailableDiskCategories": {
"DiskCategories": [
"cloud"
]
},
"AvailableResourceCreation": {
"ResourceTypes": [
"Instance",
"Disk"
]
},
"LocalName": "",
"ZoneId": "cn-hangzhou-d"
},
{
"AvailableDiskCategories": {
"DiskCategories": [
"cloud"
]
},
"AvailableResourceCreation": {
"ResourceTypes": [
"Instance",
"Disk"
]
},
"LocalName": "",
"ZoneId": "cn-hangzhou-b"
```

```
}
]
}
}
```

DescribeAccessPoints

Description

Query the list of access points in a region.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeAccessPoints
RegionId	String	Yes	The region of the access point. You can obtain the region ID by calling the DescribeRegions API.
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.
AccessPointSet	JSON String	An array of AccessPointTypes.

		For more information, see AccessPointSetType.
TotalCount	Integer	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	Integer	The number of entries on the current page.

Error codes

See VPC API Error Center.

Examples

Request example

```
http://vpc.aliyuncs.com/?&Action=DescribeAccessPoints
&RegionId=cn-beijing
&<CommonParameters>
```

Response example

```
{
"AccessPointSet": {
"AccessPointType": [
{
"Name": "Beijing-FT-A",
"Status": "recommended",
"Description": "cn-beijing-ft-cxp32",
"Type": "VPC",
"Location": "",
"HostOperator": "CINX",
"AttachedRegionNo": "cn-beijing",
"AccessPointId": "ap-cn-beijing-ft-A"
},
{
"Name": "Beijing-YZ-A",
"Status": "recommended",
"Description": "cn-beijing-yz-ne203",
"Type": "VPC",
"Location": "",
"HostOperator": "Vianet",
"AttachedRegionNo": "cn-beijing",
"AccessPointId": "ap-cn-beijing-yz-A"
},
{
```

```
"Name": "Beijing-DX-B",
"Status": "recommended",
"Description": "cn-beijing-dx-nu16",
"Type": "VPC",
"Location": "",
"HostOperator": "China Unicom",
"AttachedRegionNo": "cn-beijing",
"AccessPointId": "ap-cn-beijing-dx-B"
},
{
"Name": "Beijing-CP-A",
"Status": "recommended",
"Description": "ap-cn-beijing-cp-CM12",
"Type": "VPC",
"Location": "",
"HostOperator": "China Telecom",
"AttachedRegionNo": "cn-beijing",
"AccessPointId": "ap-cn-beijing-cp-A"
},
{
"Name": "Beijing-DX-A",
"Status": "recommended",
"Description": "cn-beijing-dx-nu17-a",
"Type": "VPC",
"Location": "",
"HostOperator": "GDS",
"AttachedRegionNo": "cn-beijing",
"AccessPointId": "ap-cn-beijing-dx-A"
}
]
},
"PageNumber": 1,
"TotalCount": 5,
"PageSize": 10,
"RequestId": "3E85D803-C7CF-4BCD-9CFE-6DBA1DFFA027"
}
```


Data Type APIs

AccessPointSetType

Description

An array of access points. It is a list of AccessPointType.

Node name

It depends on the API.

Subnode

AccessPointType

AccessPointType

Description

The detailed information of an access point.

Node name

It depends on the API.

Subnode

Name	Type	Description
AccessPointId	String	The ID of the access point.
Status	String	The status of the access point. Valid values: - Recommended: The status is good, and connection is recommended. - Hot: The status is normal, and the number of connected users is large. - Full: The number of connected users reaches the maximum value, and no more users can be

		connected.
Name	String	The name of the access point.
Description	String	The description of the access point.
AttachedRegionId	String	The region ID of the access point.
Location	String	The geographic location of the access point.
HostOperator	String	The carrier of the access point.

BandwidthPackageSetType

Description

An array of monitoring information about the NAT bandwidth package. It is a list of BandwidthPackageMonitorDataItemType.

Node name

It depends on the API.

Subnode

BandwidthPackageMonitorDataItemType

BandwidthPackageMonitorDataItemType

Description

The monitoring information of a NAT bandwidth package.

Node name

It depends on the API.

Subnode

Name	Type	Description
RX	Integer	The received traffic.
TX	Integer	The sent traffic.
Flow	Integer	The total traffic (including sent traffic and received traffic) (=RX + TX).
ReceivedBandwidth	Integer	The average bandwidth of data receiving (=RX/Period).
TransportedBandwidth	Integer	The average bandwidth of data sending (=TX/Period).
Bandwidth	Integer	The average bandwidth (including data sending and data receiving) (=Flow/Period).
Packets	Integer	The total number of sent and received packets.
TimeStamp	String	The time stamp of traffic query. It is represented according to ISO8601 and uses the time of UTC+8.

BandwidthPackageItemType

Description

An array of NAT bandwidth packages. It is a list of BandwidthPackageItemType.

Node name

It depends on the API.

Subnode

BandwidthPackageItemType

BandwidthPackageItemType

Description

The detailed information of a NAT bandwidth package.

Node name

It depends on the API.

Subnode

Name	Type	Description
BandwidthPackageId	String	The ID of the NAT bandwidth package.
RegionId	String	The region of the NAT bandwidth package.
Name	String	The name of the NAT bandwidth package.
Description	String	The description of the NAT bandwidth package.
ZoneId	String	The Zone of the NAT bandwidth package.
GatewayId	String	The ID of the NAT gateway.
Bandwidth	String	The bandwidth in Mbps of the NAT bandwidth package.
InstanceChargeType	String	The paying mode of the NAT bandwidth package. Currently only the Pay-As-You-Go paying mode is supported. Valid value: PostPaid
InternetChargeType	String	The billing mode of the NAT bandwidth package. Currently only billing by bandwidth is

		supported. Valid value: PayByBandwidth
ISP	string	The ISP type of the NAT bandwidth package. Valid value: BGP
PublicIpAddresses	JSON string	The list of public IPs of the NAT bandwidth package. For more information, see PublicIpAddressSetType.
BusinessStatus	string	The business status of the NAT bandwidth package. Valid values: - Normal: normal - FinancialLocked: locked because the NAT bandwidth package is delinquent. - SecurityLocked: locked for security reasons.
CreationTime	String	The creation time of the NAT bandwidth package. It is represented according to ISO8601 and uses the time of UTC+8.

EipAddressAssociateType

Description

Partial information of an EIP.

Node name

It depends on the API.

Subnode

Name	Type	Description

AllocationId	String	The ID of the EIP.
IpAddress	String	The address of the EIP.
Bandwidth	Integer	The peak bandwidth in Mbps of the EIP.
InternetChargeType	String	The billing mode of the EIP.

EipAddressSetType

Description

The detailed information of an EIP.

Node name

It depends on the API.

Subnode

Name	Type	Description
RegionId	String	The region of the EIP.
IpAddress	String	The address of the EIP.
AllocationId	String	The ID of the EIP.
Status	String	The status of the EIP. Valid value: - Associating: binding - Unassociating: unbinding - InUse: allocated - Available: available
InstanceType	String	The type of the instance bound to the EIP.
InstanceId	String	The ID of the instance bound to the EIP.
Bandwidth	Integer	The peak bandwidth in Mbps of the EIP.

InternetChargeType	String	The billing mode of the EIP.
OperationLocks	JSON string	An array of reasons why the EIP is locked. For more information, see OperationLocksType.
AllocationTime	String	The creation time of the EIP. It is represented according to ISO8601 and uses the time of UTC+8.

EipMonitorDataType

Description

The monitoring information of an EIP in a specified period.

Node name

It depends on the API.

Subnode

Name	Type	Description
EipRX	Integer	The data traffic in bytes received by the EIP in the specified period.
EipTX	Integer	The data traffic in bytes sent by the EIP in the specified period.
EipFlow	Integer	The total data traffic in bytes received and sent by the EIP in the specified period.
EipBandwidth	Integer	The total rate in bytes/s of the EIP in receiving and sending traffic.
EipPackets	Integer	The total number of packets received and sent by the EIP in the specified period.
TimeStamp	String	The time stamp of the monitoring data. It is represented according to

		ISO8601 and uses the time of UTC+8.

ForwardEntrySetType

Description

An array of DNAT entries. It is a list of ForwardEntryItemType.

Node

It depends on the API.

Subnode

ForwardEntryItemType

ForwardEntryItemType

Description

The detailed information of a DNAT entry.

Node name

It depends on the API.

Subnode

Name	Type	Description
ForwardTableId	String	The ID of DNAT table to which the DNAT entry belongs.

ForwardEntryId	String	The ID of the DNAT entry.
ExternalIp	String	The public IP address.
ExternalPort	String	The public port.
IpProtocol	String	The protocol type.
InternalIp	String	The private IP address.
InternalPort	String	The private port.
Status	String	The status of the DNAT entry. Valid value: - pending: configuring - Available: available - Modifying: modifying

IpAddressSetType

Description

An array of IP addresses.

Node name

It depends on the API.

Subnode

Name	Type	Description
IpAddress	String	The IP address.

NatGatewaySetType

Description

An array of NAT gateways. It is a list of NatGatewayItemType.

Node name

It depends on the API.

Subnode

NatGatewayItemType

NatGatewayItemType

Description

The detailed information of a NAT gateway.

Node

It depends on the API.

Subnode

Name	Type	Description
NatGatewayId	String	The ID of the NAT gateway.
RegionId	String	The region of the NAT gateway.
VpcId	String	The VPC to which the NAT gateway belongs.
Name	String	The name of the NAT gateway.
Description	String	The description of the NAT gateway.
Spec	String	The specification of the NAT

		gateway.
Status	String	The status of the NAT gateway. Valid values: - Initiating: initiating - Available: available - Pending: configuring
ForwardTableIds	Array	The ID of the DNAT table.
SnatTableIds	Array	The ID of the SNAT table.
BandwidthPackageIds	Array	The ID of the NAT bandwidth package.
InstanceChargeType	String	The billing mode of the NAT gateway.
BusinessStatus	string	The business status of the NAT gateway. Valid values: - Normal: normal - FinancialLocked: locked because the NAT gateway is delinquent. - SecurityLocked: locked for security reasons.
CreationTime	String	The creation time of the NAT gateway. It is represented according to ISO8601 and uses the time of UTC+8.

NextHopListType

Description

An array of next hop information of ECMP routing. It is a list of NextHopItemType.

Node name

NextHopList

Subnode

NextHopItemType

NextHopItemType

Description

The next hop information of a route entry.

Node name

NextHopItem

Subnode

Name	Type	Description
NextHopType	String	The type of the next hop. Valid values: - Instance - Tunnel - HaVip - RouterInterface
NextHopId	String	The ID of the next-hop instance.
Enabled	Integer	Whether the next hop is available. 1 indicates that the next hop is available, and 0 indicates that the next hop is unavailable.
Weight	Integer	The routing weight of the next hop.

OperationLocksType

Description

The reason why a resource is locked.

Node name

OperationLock

Subnode

Name	Type	Description
LockReason	String	The reason of being locked. Valid value: - financial: locked because the resource is delinquent. - security: locked for security reasons.

PhysicalConnectionSetType

Description

An array of physical connections. It is a list of PhysicalConnectionType.

Node

It depends on the API.

Subnode

PhysicalConnectionType

PhysicalConnectionType

Description

The detailed information of a physical connection.

Node name

It depends on the API.

Subnode

Name	Type	Description
PhysicalConnectionId	String	The ID of the physical connection.
AccessPointId	String	The ID of the access point.
Status	String	The status of the physical connection. Valid value: - Initial: applicating - Approved: approved - Allocating: allocating - Allocated: constructing - Confirmed: wait for user confirmation - Enabled: normal - Rejected: application rejected - Canceled: canceled - Allocation Failed: allocation failed - Terminated: terminated
BusinessStatus	String	The business status of the physical connection. Valid value: - Normal: normal - FinancialLocked: locked because the physical

		connection is delinquent - SecurityLocked: locked for security reasons
CreationTime	String	The creation time of the physical connection.
EnabledTime	String	The activation time of the physical connection.
LineOperator	String	The carrier of the physical connection. Valid values: - CT: China Telecom - CU: China Unicom - CM: China Mobile - CO: Other (China) - Equinix: Equinix - Other: Other (outside China)
Spec	String	The specification of the physical connection.
PeerLocation	String	The peer location of the physical connection.
PortType	String	The port type of the physical connection. Valid values: - 100Base-T: 100-MB electrical port - 1000Base-T: 1-GB electrical port - 1000Base-LX: 1-GB single-mode optical port (10 km) - 10GBase-T: 10-GB electrical port - 10GBase-LR: 10-GB single-mode optical port (10 km)
RedundantPhysicalConnectionId	String	The ID of the redundant physical connection.
Name	String	The name of the physical connection.
Description	String	The description of the physical connection.

ADLocation	String	The location of the physical access device.
PortNumber	String	The port number of the physical access device.
CircuitCode	Long	The circuit code provided by the carrier for the physical connection.
Bandwidth	String	The bandwidth of the physical connection.

PublicIpAddressItemType

Description

An array of public IPs in a NAT bandwidth package. It is a list of PublicIpAddressItemType.

Node name

It depends on the API.

Subnode

PublicIpAddressItemType

PublicIpAddressItemType

Description

The detailed information of a public IP.

Node name

It depends on the API.

Subnode

Name	Type	Description
AllocationId	String	The ID of the public IP.
IpAddress	String	The address of the public IP.

RegionType

Description

An array of regions.

Node name

Region

Subnode

Name	Type	Description
RegionId	String	The ID of the region.
LocalName	String	The name of the region.

RouteEntrySetType

Description

The detailed information of a route entry.

Node name

It depends on the API.

Subnode

Name	Type	Description
RouteTableId	String	The ID of the route table to which the route entry belongs.
DestinationCidrBlock	String	The destination CIDR block of the route entry.
Type	String	The type of the route entry. Valid value: - System: system route entry - Custom: custom route entry - BGP: BGP route entry
NextHopType	String	The type of the next hop.
InstanceId	String	The ID of the next-hop instance.
NextHops	NextHopListType	A list of next hops in ECMP routing. For more information, see NextHopListType.
Status	String	The status of the route entry. Valid value: - Pending: configuring - Available: available - Modifying: modifying
RouterId	String	The ID of the router to which the router entry belongs.

RouterInterfaceSetType

Description

An array of router interfaces. It is a list of RouterInterfaceItemType.

Node name

It depends on the API.

Subnode

RouterInterfaceItemType

RouterInterfaceItemType

Description

The detailed information of a router interface.

Node name

It depends on the API.

Subnode

Name	Type	Description
RouterInterfaceId	string	The ID of the router interface.
AccessPointId	string	The ID of the access point.
OppositeRegionId	string	The region of the peer access point.
OppositeAccessPointId	string	The ID of the peer access point.
Role	string	The role of the router interface.
Spec	string	The specification of the router interface.
Name	string	The name of the router interface.
Description	string	The description of the router interface.
RouterId	string	The ID of the router to which the

		router interface belongs.
RouterType	string	The type of the router to which the router interface belongs. Valid value: - VRouter: VRouter - VBR: VBR
CreationTime	string	The creation time of the router interface.
Status	string	The status of the router interface.
BusinessStatus	string	The business status of the router interface. Valid value: - Normal: normal - FinancialLocked: locked because the router interface is delinquent - SecurityLocked: locked for security reasons
ConnectedTime	string	The creation time of the connection.
OppositeInterfaceId	string	The ID of the peer router interface.
OppositeInterfaceSpec	string	The specification of the peer router interface.
OppositeInterfaceStatus	string	The status of the peer router interface.
OppositeInterfaceBusinessStatus	string	The business status of the peer router interface.
OppositeRouterId	string	The ID of the router to which the peer router interface belongs.
OppositeRouterType	string	The type of the router to which the peer router interface belongs.
OppositeInterfaceOwnerId	string	The ID of the owner of the peer router interface.
HealthCheckSourceIp	string	The source IP address of the health check.
HealthCheckTargetIp	string	The destination IP address of the health check.

RouteTableSetType

Description

The detailed information of the route table.

Node name

It depends on the API.

Subnode

Name	Type	Description
RouterType	String	The type of the router to which the route table belongs. Valid value: - VRouter: VRouter - VBR: VBR
RouterId	String	The ID of the router to which the route table belongs.
VRouterId	String	The ID of the VRouter.
RouteTableId	String	The ID of the route table.
RouteEntrys	JSON string	The detailed information of a route entry. For more information, see RouteEntrySetType.
RouteTableType	String	The type of the route table.
CreationTime	String	The creation time of the route table. It is represented according to ISO8601 and uses the time of UTC+8.

SnatEntryItemType

Description

The detailed information of an SNAT entry.

Node name

It depends on the API.

Subnode

Name	Type	Description
SnatTableId	String	The ID of the SNAT table to which the SNAT entry belongs.
SnatEntryId	String	The ID of the SNAT entry.
SourceVSwitchId	String	The ID of the VSwitch that uses SNAT to access the Internet.
SourceCIDR	String	The source CIDR block of the SNAT entry.
SnatIp	String	The public IP of the SNAT entry.
Status	String	The status of the SNAT entry. Valid value: - Pending: configuring - Available: available - Modifying: modifying

SnatEntrySetType

Description

An array of SNAT entries. It is a list of SnatEntryItemType.

Node name

It depends on the API.

Subnode

SnatEntryItemType

VirtualBorderRouterForPhysicalConnectionSetType

Description

An array of VBRs on a physical connection. It is a list of VirtualBorderRouterForPhysicalConnectionType.

Node

It depends on the API.

Subnode

VirtualBorderRouterType

VirtualBorderRouterForPhysicalConnectionType

Description

The detailed information of a VBR.

Node name

It depends on the API.

Subnode

Name	Type	Description
VbrId	String	The ID of the VBR.
VbrOwnerUid	String	The UID of the VBR owner. This parameter is empty when the VBR and the physical connection is owned by the same account.
CreationTime	String	The time when the VBR is created.
ActivationTime	String	The time when the VBR is activated for the first time.
TerminationTime	String	The time when the VBR is terminated most recently.
RecoveryTime	String	The time when the VBR is recovered from the Terminated status to the Active status most recently.
VlanId	String	The VLAN ID of the VBR.
CircuitCode	String	The circuit code provided by the carrier for the physical connection.

VirtualBorderRouterSetType

Description

An array of VBRs. It is a list of VirtualBorderRouterType.

Node name

It depends on the API.

Subnode

VirtualBorderRouterType

VirtualBorderRouterType

Description

The detailed information of the VBR.

Node name

It depends on the API.

Subnode

Name	Type	Description
VbrId	String	The ID of the VBR.
VbrOwnerUid	String	The UID of the VBR owner. This parameter is empty when the VBR and the physical connection is owned by the same account.
CreationTime	String	The time when the VBR is created.
ActivationTime	String	The time when the VBR is activated for the first time.
TerminationTime	String	The time when the VBR is terminated most recently.
RecoveryTime	String	The time when the VBR is recovered from the Terminated status to the Active status most recently.
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 physical connection.

RouteTableId	String	The ID of the route table of the VBR.
VlanInterfaceId	String	The ID of the router interface on the VBR.
LocalGatewayIp	String	The Alibaba Cloud-side IP address.
PeerGatewayIp	String	The customer-side IP address.
PeeringSubnetMask	String	The netmask of the Alibaba Cloud-side IP address and the customer-side IP address.
Name	String	The name of the VBR.
Description	String	The description of the VBR.
PhysicalConnectionId	String	The ID of the physical connection to which the VBR belongs.
PhysicalConnectionStatus	String	The status of the physical connection. Valid value: - Initial: applying - Approved: approved - Allocating: allocating - Allocated: constructing - Confirmed: waiting for customer confirmation - Enabled: normal - Rejected: rejected - Canceled: canceled - Allocation Failed: allocation failed - Terminated: terminated
PhysicalConnectionBusinessStatus	String	The business status of the physical connection. Valid value: - Normal: normal - FinancialLocked: locked because the physical connection is delinquent - SecurityLocked: locked for security reasons
PhysicalConnectionOwnerUid	String	The UID of the physical connection owner.
AccessPointId	String	The ID of the access point.

VpcSetType

Description

An array of VPCs.

Node name

It depends on the API.

Subnode

Name	Type	Description
VpcId	String	The ID of the VPC.
RegionId	String	The region of the VPC.
Status	String	The status of the VPC. Valid value: - Pending: configuring - Available: available
VpcName	String	The name of the VPC.
VSwitchIds	String	The 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 creation time of the VPC. It is represented according to ISO8601 and uses the time of UTC+8.
IsDefault	Boolean	Whether the VPC is the default VPC used by the user in the region.
UserCidrs	String	The list of customer-side CIDR blocks.

VRouterSetType

Description

An array of VRouters.

Node name

It depends on the API.

Subnode

Name	Type	Description
VRouterId	String	The ID of the VRouter.
RegionId	String	The region of the VRouter.
VpcId	String	The ID of the VPC.
RouteTableIds	String	The ID of the route table of the VRouter.
VRouterName	String	The name of the VRouter.
Description	String	The description of the VRouter.
CreationTime	String	The creation time of the VRouter. It is represented according to ISO8601 and uses the time of UTC+8.

VSwitchSetType

Description

An array of VSwitches.

Node name

It depends on the API.

Subnode

Name	Type	Description
VSwitchId	String	The ID of the VSwitch.
VpcId	String	The ID of the VPC to which the VSwitch belongs.
Status	String	The status of the VSwitch. Valid value: - Pending: configuring - Available: available
CidrBlock	String	The CIDR block of the VSwitch.
ZoneId	String	The zone of the VSwitch.
AvailableIpAddressCount	Integer	The number of available IP addresses in the VSwitch.
Description	String	The description of the VSwitch.
VSwitchName	String	The name of the VSwitch.
IsDefault	Boolean	Whether the VSwitch is the default VSwitch used by the user in the zone.
CreationTime	String	The creation time of the VSwitch. It is represented according to ISO8601 and uses the time of UTC+8.

ZoneType

Description

The information of a zone.

Node name

Zone

Subnode

Name	Type	Description
ZoneId	String	The ID of the zone.
LocalName	String	The name of the zone.

BandwidthPackagePublicIpMonitorDataItemType

Description

The monitoring information about an IP in the NAT bandwidth package in a specified period.

Node name

It depends on the API.

Subnode

Name	Type	Description
RX	Integer	The data traffic in bytes received by the IP in the specified period.
TX	Integer	The data traffic in bytes sent by the IP in the specified period.
Flow	Integer	The total traffic in bytes received and sent by the IP in the specified period.
ReceivedBandwidth	Integer	The data receiving rate in bytes/s of the IP.
TransportedBandwidth	Integer	The data sending rate in bytes/s of the IP.

Bandwidth	Integer	The total rate in bytes/s of the IP in receiving and sending traffic.
Packets	Integer	The total number of packets sent and received by the IP in the specified period.
TimeStamp	String	The time stamp of the monitoring data. It is represented according to ISO8601 and uses the time of UTC+8.

BandwidthPackagePublicIpMonitorDataSetType

Description

An array of monitoring information about IPs in a NAT bandwidth package. It is a list of BandwidthPackagePublicIpMonitorDataItemType.

Node name

It depends on the API.

Subnode

BandwidthPackagePublicIpMonitorDataItemType

BackendServerItemType

Description

The detailed information of a backend server bound to a Global Acceleration instance.

Node name

It depends on the API.

Subnode

Name	Type	Description
RegionId	String	The region of the backend server.
ServerId	String	The ID of the backend server.
ServerIpAddress	String	The IP address of the backend server.
ServerType	String	The type of the backend server.

BackendServerItemType

Description

An array of backend servers bound to a Global Acceleration instance. It is a list of BackendServerItemType.

Node name

It depends on the API.

Subnode

BackendServerItemType

GlobalAccelerationInstanceItemType

Description

The detailed information of a Global Acceleration instance.

Node name

It depends on the API.

Subnode

Subnode	Type	Description
RegionId	String	The region of the Global Acceleration instance.
GlobalAccelerationInstanceId	String	The ID of the Global Acceleration instance.
IpAddress	String	The public IP of the Global Acceleration instance.
Status	String	The status of the Global Acceleration instance.
Bandwidth	Integer	The peak bandwidth of the Global Acceleration instance.
ChargeType	String	The paying mode of the Global Acceleration instance. Valid value: - PrePaid: Subscription - PostPaid: Pay-As-You-Go
InternetChargeType	String	The billing mode of the Global Acceleration instance. Valid value: PayByBandwidth
ServiceLocation	String	The service area of the Global Acceleration instance.
AccelerationLocation	String	The accelerated area of the Global Acceleration instance.
Name	String	The name of the Global Acceleration instance.
Description	String	The description of the Global Acceleration instance.
CreationTime	String	The creation time of the Global

		Acceleration instance. It is represented according to ISO8601 and uses the time of UTC+8.
ExpiredTime	String	The expiration time of the Global Acceleration instance. It is represented according to ISO8601 and uses the time of UTC+8.
OperationLocks	OperationLocksType	The reason why the Global Acceleration instance is locked. For more information, see OperationLocksType.
BackendServers	BackendServerSetType	The detailed information of backend servers bound to the Global Acceleration instance. For more information, see BackendServerSetType.

GlobalAccelerationInstanceSetType

Description

An array of Global Acceleration instances. It is a list of GlobalAccelerationInstanceItemType.

Node name

It depends on the API.

Subnode

GlobalAccelerationInstanceItemType

ServerRelatedGlobalAccelerationInstanceItemType

Description

The information of a Global Acceleration instance bound to a specified backend server.

Node name

It depends on the API.

Subnode

Name	Type	Description
GlobalAccelerationInstanceId	String	The ID of the Global Acceleration instance.
IpAddress	String	The public IP of the Global Acceleration instance.
RegionId	String	The region of the Global Acceleration instance.
ServerIpAddress	String	The IP address of the backend server.

ServerRelatedGlobalAccelerationInstanceSetType

Description

An array of Global Acceleration instances bound to a specified backend server. It is a list of ServerRelatedGlobalAccelerationInstanceItemType.

Node name

It depends on the API.

Subnode

ServerRelatedGlobalAccelerationInstanceItemType

Appendix

Time format

ISO 8601, with the full name *Data elements and interchange formats -Information interchange - Representation of dates and times*, is a standard regarding date and time representation issued by International Organization for Standardization. The time format of ECS Open API adopts ISO 8601. For more information, see ISO8601.

Common error codes

Client errors

For more information, see error codes of different APIs.

Server errors

Error code	Error message	Http status code	Description
ServiceUnavailable	The request has failed due to a temporary failure of the server.	503	The service is unavailable.
InternalError	The request processing has failed due to some unknown error, exception or failure.	500	Internal error.

Ensure idempotency

If a request times out or an internal server error occurs when calling the CreateVpc API to create a VPC instance, the client may attempt to resend the request. This may cause more instances to be created than was intended.

This situation can be avoided by specifying the ClientToken parameter to ensure that the request is idempotent. A client token is a unique, case-sensitive string generated by the client, and cannot exceed 64 ASCII characters.

If the same client token is used to call the API to create an instance, the same response with the same VpcId will be returned. Therefore, you can provide the same client token when the request is resent to guarantee that only one instance is created.

Note: The values for the parameters including SignatureNonce, TimeStamp, and Signature cannot be the same each time a request is resent. Alibaba Cloud signs the request to guarantee the security of the API calling.

Generally, a client will make a retry when a 500 (InternalError) or 503 (ServiceUnAvailable) error occurs or it does not receive a response. When the HTTP status code 200 is returned, a same response as the last time is returned without any effect on the server. However, a retry also cannot resolve the error of HTTP status code 4xx.

> **Note**: The IdempotentParameterMismatch error will be returned if a client token, that has been used previously, is provided even though other parameters may be different.

Call VPC APIs

Calling a VPC API includes sending an HTTP request to the VPC server (you can send it through the HTTP or HTTPS protocol) and receiving the VPC's response to this request. After the VPC server receives the user request, it will perform necessary authentication and parameter verification on the request. After the request passes all verifications, it submits according to parameters of the request and completes related operations. Then, it returns the processing results to the caller in the form of an HTTP response.

Request structure

A request is composed of the following parts:

HTTP method: Currently all VPC APIs only supports calling through the GET method.

Request URL: The service address of the request, the action to perform, parameters, and common parameters are included in the request URL.

Server address: The domain names of VPC service include http://ecs.aliyuncs.com/ and https://ecs.aliyuncs.com/. To ensure the security of the request, we recommend that you use the HTTPS protocol (HTTPS has added the SSL layer to encrypt the communication and can prevent the leakage of sensitive information caused by communication interception).

The action to perform: You must specify the action to perform for each API, that is, the Action parameter.

Parameters: You must enter different parameters for different actions. For more information, see documents of different APIs.

Common parameters: You must include parameters such as TimeStamp and Signature in each request.

For the server to correctly authenticate user identity and authorize execution, the request must be signed before submission for processing. For signature rules, refer to the signature section.

After the server finishes processing the request, it will return the response result. The return result includes successful result and error messages. For the description of format, refer to the return result section. The client can resolve the response message body to obtain the execution result.

Example

Taking the DescribeRegions API as an example:

The Action is DescribeRegions, which is used for querying the list of regions. Because the API includes no customer parameters, only common request parameters are required (Signature is also required. This parameter can be calculated later using the signature algorithm). After the parameters are added, the URL of the request is as follows (To make it easy to read, the URL is displayed in the following format in the document):

```
http://vpc.aliyuncs.com/?TimeStamp=2016-02-
23T12:46:24Z&Format=XML&AccessKeyId=testid&Action=DescribeRegions&SignatureMethod=HMAC-
SHA1&SignatureNonce=3ee8c1b8-83d3-44af-a94f-4e0ad82fd6cf&Version=2016-04-28&SignatureVersion=1.0
```

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

```
AccessKeyId=testid&Action=DescribeRegions&Format=XML&SignatureMethod=HMAC-
SHA1&SignatureNonce=3ee8c1b8-83d3-44af-a94f-
4e0ad82fd6cf&SignatureVersion=1.0&TimeStamp=2016-02-23T12%3A46%3A24Z&Version=2016-04-28
```

Construct the string to sign:

```
GET&%2F&AccessKeyId%3Dtestid&Action%3DDescribeRegions&Format%3DXML&SignatureMethod%3
DHMAC-SHA1&SignatureNonce%3D3ee8c1b8-83d3-44af-a94f-
4e0ad82fd6cf&SignatureVersion%3D1.0&TimeStamp%3D2016-02-
23T12%253A46%253A24Z&Version%3D2016-04-28
```

The following Java example shows how to add common request parameters, how to use the request parameters to create a canonicalized query string, and how to construct the string to sign. The example assumes that all request are in the Map<String, String> object, and the used AccessKey ID is testid.

```
 final String HTTP_METHOD = "GET";

Map<String, String> parameters = new HashMap<String, String>();
// Add request parameters
parameters.put("Action", "DescribeRegions");
parameters.put("Version", "2016-04-28");
parameters.put("AccessKeyId", "testid");
parameters.put("TimeStamp", formatIso8601Date(new Date()));
parameters.put("SignatureMethod", "HMAC-SHA1");
parameters.put("SignatureVersion", "1.0");
parameters.put("SignatureNonce", UUID.randomUUID().toString());
parameters.put("Format", "XML");

// Sort the parameters
String[] sortedKeys = parameters.keySet().toArray(new String[]{});
Arrays.sort(sortedKeys);

final String SEPARATOR = "&";

// Generate the string to sign
StringBuilder stringToSign = new StringBuilder();
stringToSign.append(HTTP_METHOD).append(SEPARATOR);
stringToSign.append(percentEncode("/")).append(SEPARATOR);

StringBuilder canonicalizedQueryString = new StringBuilder();
for(String key : sortedKeys) {
// Encode the key and the value
canonicalizedQueryString.append("&")
.append(percentEncode(key)).append("=")
.append(percentEncode(parameters.get(key)));
}

// Encode the canonicalized query string
stringToSign.append(percentEncode(
canonicalizedQueryString.toString().substring(1)));
```

The following example shows how to generate a standard TimeStamp string:

Note: The TimeStamp parameter must meet the ISO8601 standard and use the UTC

time, or an error occurs.

```
 private static final String ISO8601_DATE_FORMAT = "yyyy-MM-dd'T'HH:mm:ss'Z'";
private static String formatIso8601Date(Date date) {
SimpleDateFormat df = new SimpleDateFormat(ISO8601_DATE_FORMAT);
df.setTimeZone(new SimpleTimeZone(0, "GMT"));
return df.format(date);
}
```

Both the canonicalized query string and the StringToSign must be encoded. The encoding rules are described in detail in the signature section. The following example demonstrates the algorithm of encoding:

```
private static final String ENCODING = "UTF-8";

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

If the AccessKey ID is testid, the AccessKey Secret is testsecret, and the Key used for calculating the HMAC value is testsecret&, the calculated signature is:

```
CT9X0VtwR86fNWSnsc6v8YGOjuE=
```

Example of signature calculation (Java):

```
// The following is a code example of signature calculation
final String ALGORITHM = "HmacSHA1";
final String ENCODING = "UTF-8";
key = "testsecret&";

Mac mac = Mac.getInstance(ALGORITHM);
mac.init(new SecretKeySpec(key.getBytes(ENCODING), ALGORITHM));
byte[] signData = mac.doFinal(stringToSign.getBytes(ENCODING));

String signature = new String(Base64.encodeBase64(signData));
```

4. Add the signature to the URL. The final request URL is as follows:

```
http://vpc.aliyuncs.com/?SignatureVersion=1.0&Action=DescribeRegions&Format=XML&SignatureNon
ce=3ee8c1b8-83d3-44af-a94f-4e0ad82fd6cf&Version=2016-04-
28&AccessKeyId=testid&Signature=CT9X0VtwR86fNWSnsc6v8YGOjuE%3D&SignatureMethod=HMAC-
SHA1&TimeStamp=2016-02-23T12%3A46%3A24Z
```

Then send an HTTP request to the URL and receive a response from the VPC server, as shown below:

```
<DescribeRegionsResponse>
<Regions>
<Region>
<LocalName>Qingdao</LocalName>
<RegionId>cn-qingdao</RegionId>
</Region>
<Region>
<LocalName>Hangzhou</LocalName>
<RegionId>cn-hangzhou</RegionId>
</Region>
</Regions>
<RequestId>833C6B2C-E309-45D4-A5C3-03A7A7A48ACF</RequestId>
</DescribeRegionsResponse>
```

You can resolve the result to obtain the list of available region IDs and local names. If you specify the JSON format when submitting a request, the return result is in the JSON format.

SDK Reference

SDK Documentation

The SDK for ECS contains VPC related functions. For details, click here.