

Alibaba Cloud Virtual Private Cloud

API reference

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Generic conventions

Table -1: Style conventions

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

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1 API overview

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

VPC

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

Router interface

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

VSwitch

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

Route table

API	Description
CreateRouteEntry	Create a custom route entry on a VRouter or VBR.
DeleteRouteEntry	Delete a route entry in the route table of a VRouter or VBR.
DescribeRouteTables	Query route entries in a route table.

EIP

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

NAT Gateway

API	Description
CreaeNatGateway	Create a NAT Gateway.
DescribeNatGateways	Query created NAT Gateways.
ModifyBandwidthPackageSpec	Modify a NAT Gateway.
ModifyNatGatewayAttribute	Modify the configurations of a NAT Gateway.
DeleteNatGateway	Delete a NAT Gateway.
CreateBandwidthPackage	Create a NAT bandwidth package.
DescribeBandwidthPackages	Query NAT bandwidth packages in a region.
ModifyBandwidthPackageSpec	Modify the bandwidth of a NAT bandwidth package.
ModifyBandwidthPackageAttribute	Modify the name and description of a NAT bandwidth package.
AddBandwidthPackageIps	Modify a NAT bandwidth package-Add public IPs.
RemoveBandwidthPackageIps	Modify a NAT bandwidth package-Remove public IPs.
DeleteBandwidthPackage	Delete a NAT bandwidth package.
CreateForwardEntry	Add a DNAT entry in a DNAT table.
DescribeForwardTableEntries	Query created DNAT entries.
ModifyForwardEntry	Modify a DNAT entry.

API	Description
DeleteForwardEntry	Delete a DNAT entry.
CreateSnatEntry	Add an SNAT entry in a SNAT table.
DescribeSnatTableEntries	Query created SNAT entries in a SNAT table.
ModifySnatEntry	Modify an SNAT entry.
DeleteSnatEntry	Delete an SNAT entry.

VPN Gateways

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

API	Description
DescribeSslVpnServers	Query created SSL-VPN servers.
DeleteSslVpnServer	Remove an SSL-VPN server.
ModifySslVpnServer	Modify the configurations of an SSL-VPN server.
CreateSslVpnClientCert	Create an SSL-VPN client certificate.
DescribeSslVpnClientCerts	Query created SSL-VPN client certificates.
DeleteSslVpnClientCert	Delete an SSL-VPN client certificate.
ModifySslVpnClientCert	Modify the name of an SSL-VPN client certificate.

Region

API	Description
DescribeRegions	Query regions.
DescribeZones	Query zones.
DescribeAccessPoints	Query access points in a region.

Monitor

API	Description
DescribeBandwidthPackagePublicIpMonitorData	Query the monitoring data of a public IP in the NAT bandwidth package.
DescribeEipMonitorData	Query the monitoring information of an EIP.

Physical connection

API	Description
CreatePhysicalConnection	Create a physical connection.
CancelPhysicalConnection	Cancel physical connection access before the physical connection is enabled.
DescribePhysicalConnections	Query created physical connections in a region.
ModifyPhysicalConnectionAttribute	Modify the configurations of a physical connection.
TerminatePhysicalConnection	Terminate the access of the physical connection after the physical connection is

API	Description
	enabled. The physical connection changes to the Terminating status after the API is called and changes to the Terminated status when the process is completed.
EnablePhysicalConnection	Enable the physical connection in the Confirmed status. Then the physical connection changes to the Enabled status.
DeletePhysicalConnection	Delete a physical connection.

VBR

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

Router interface

API	Description
CreateRouterInterface	Create a router interface.
DescribeRouterInterfaces	Query router interfaces in a region.
ConnectRouterInterface	The initiator router interface initiates a connection to the receiver router interface.
ActivateRouterInterface	Activate a router interface in the Inactive status.
DeactivateRouterInterface	Deactivate a router interface.
ModifyRouterInterfaceSpec	Modify the specification of a router interface.
ModifyRouterInterfaceAttribute	Modify the configurations of a router interface.
DeleteRouterInterface	Delete a router interface.

BGP

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

Global Acceleration

API	Description
CreateGlobalAccelerationInstance	Create a Global Acceleration instance.
DescribeGlobalAccelerationInstances	Query the list of created Global Acceleration instances.
ModifyGlobalAccelerationInstanceAttributes	Modify the name and description of a Global Acceleration instance.
ModifyGlobalAccelerationInstanceSpec	Modify the bandwidth of a Global Acceleration instance.
DeleteGlobalAccelerationInstance	Delete a Global Acceleration instance.
AssociateGlobalAccelerationInstance	Bind a Global Acceleration instance to a backend server.
UnassociateGlobalAccelerationInstance	Unbind a Global Acceleration instance from the associated backend server.
DescribeServerRelatedGlobalAccelerationInstances	Query Global Acceleration instances bound to a backend server.

2 Call VPC APIs

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

Request structure

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

The request structure is as follows:

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

where:

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

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

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



Note:

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

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

...

API authorization

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

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

API signature

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

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

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

```
https://endpoint/?SignatureVersion=1.0&SignatureMethod=HMAC-SHA1
&Signature=CT9X0VtwR86fNWSnsc6v8YG0juE%3D&SignatureNonce=3ee8c1b8-83d3-
44af-a94f-4e0ad82fd6cf
```

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

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

Follow these steps to calculate the signature:

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

```
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%3D2014-05-15
```

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

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

```
CT9X0VtwR86fNWSnsc6v8YG0juE=
```

3. Add the signature to the request URL.

```
http://vpc.aliyuncs.com/?Action=DescribeVpcs  
&Timestamp=2016-02-23T12:46:24Z  
&Format=XML  
&AccessKeyId=testid  
&SignatureMethod=HMAC-SHA1  
&SignatureNonce=3ee8c1b8-83d3-44af-a94f-4e0ad82fd6cf  
&Version=2014-05-26  
&SignatureVersion=1.0  
&Signature=CT9X0VtwR86fNWSnsc6v8YG0juE%3D
```

3 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.

VPC resources

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

Resource type	ARN format
VPC	acs:vpc:\$regionid:\$accountid:vpc/\$vpcid
	acs:vpc:\$regionid:\$accountid:vpc/*
	acs:vpc:*:\$accountid:vpc/*
	acs:slb:*:*:loadbalancer/*
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/*

Resource type	ARN format
NAT Gateway Bandwidth Package	acs:vpc:\$regionid:\$accountid:bandwidthpackage/\$bandwidthpackageid
	acs:vpc:\$regionid:\$accountid:bandwidthpackage/*
	aacs: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:*

\$regionid/accountid/vrouterid is the resource ID. * represents all corresponding resources.

VPC APIs

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

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

API	ARN format
<code>vpc:CreateVpc</code>	<code>acs:vpc:\$regionid:\$accountid:vpc/*</code>
<code>vpc>DeleteVpc</code>	<code>acs:vpc:\$regionid:\$accountid:vpc/\$vpcid</code>
<code>vpc:DescribeVpcs</code>	<code>vpc:\$regionid:\$accountid:vpc/*</code>
<code>vpc:ModifyVpcAttribute</code>	<code>acs:vpc:\$regionid:\$accountid:vpc/\$vpcid</code>
<code>vpc:DescribeVRouters</code>	<code>acs:vpc:\$regionid:\$accountid:vrouter/*</code>
	Specify the VRouterId to query: <code>"vpc:Vpc": "acs:vpc:\$regionid:\$accountid:vpc/\$vpcid"</code>
	The VRouterId is not specified: <code>"vpc:Vpc": "acs:vpc:\$regionid:\$accountid:vpc/*"</code>
<code>vpc:ModifyVRouterAttribute</code>	<code>acs:slb*: \$accountid:*</code>
<code>vpc:CreateVSwitch</code>	<code>acs:vpc:\$regionid:\$accountid:vswitch/*</code>
	<code>acs:vpc:\$regionid:\$accountid:vpc/\$vpcid</code>
<code>vpc>DeleteVSwitch</code>	<code>acs:vpc:\$regionid:\$accountid:vswitch/\$vswitchid</code>
<code>vpc:DescribeVSwitches</code>	<code>acs:vpc:\$regionid:\$accountid:vswitch/*</code>
	<code>"vpc:Vpc": "acs:vpc:\$regionid:\$accountid:vpc/\$vpcid"</code>
<code>vpc:ModifyVSwitchAttribute</code>	<code>acs:vpc:\$regionid:\$accountid:vswitch/\$vswitchid</code>
<code>vpc:CreateRouteEntry</code>	<code>acs:vpc:\$regionid:\$accountid:routetable/\$routetableid</code>
<code>vpc>DeleteRouteEntry</code>	<code>acs:vpc:\$regionid:\$accountid:routetable/\$routetableid</code>
<code>vpc:DescribeRouteTables</code>	<code>acs:vpc:\$regionid:\$accountid:routetable/*</code>
	<code>"vpc:VRouter": "acs:vpc:\$regionid:\$accountid:vrouter/\$vrouterid"</code>
<code>CreateHaVip</code>	<code>acs:vpc:\$regionid:\$accountid:havip/*</code>

API	ARN format
	acs:vpc:\$regionid:\$accountid:vswitch/\$vswitchid
DeleteHaVip	acs:vpc:\$regionid:\$accountid:havip/\$havipid
AssociateHaVip	acs:vpc:\$regionid:\$accountid:havip/\$havipid
	acs:slb:%s:%s:certificate/%
	acs:ecs:\$regionid:\$accountid:instance/\$instanceid
UnassociateHaVip	acs:vpc:\$regionid:\$accountid:havip/\$havipid
	acs:ecs:\$regionid:\$accountid:instance/\$instanceid
DescribeHaVips	acs:vpc:\$regionid:\$accountid:havip/*
vpc:AllocateEipAddress	acs:vpc:\$regionid:\$accountid:eip/*
AssociateEipAddress	acs:vpc:\$regionid:\$accountid:eip/*
	Bind an ECS instance acs:vpc:\$regionid:\$accountid:eip/\$allocationid acs:ecs:\$regionid:\$accountid:instance/\$instanceid
	Bind an HAVIP acs:vpc:\$regionid:\$accountid:eip/\$allocationid acs:vpc:\$regionid:\$accountid:havip/\$havipid
vpc:DescribeEipAddresses	acs:vpc:\$regionid:\$accountid:eip/*
vpc:UnassociateEipAddress	Bind an ECS instance acs:vpc:\$regionid:\$accountid:eip/\$allocationid acs:ecs:\$regionid:\$accountid:instance/\$instanceid
	Bind an HAVIP acs:vpc:\$regionid:\$accountid:eip/\$allocationid acs:vpc:\$regionid:\$accountid:havip/\$havipid
vpc:ReleaseEipAddress	acs:vpc:\$regionid:\$accountid:eip/\$allocationid

API	ARN format
vpc:DescribeEipMonitorData	acs:vpc:\$regionid:\$accountid:eip/\$allocationid
	acs:ecs:\$regionid:\$accountid:instance/\$instanceid
CreateNatGateway	acs:vpc:\$regionid:\$accountid:natgateway/*
vpc:DescribeNatGateways	acs:vpc:\$regionid:\$accountid:natgateway/\$natgatewayid
	acs:vpc:\$regionid:\$accountid:natgateway/*
ModifyNatGatewaySpec	acs:vpc:\$regionid:\$accountid:natgateway/\$natgatewayid
vpc:ModifyNatGatewayAttribute	acs:vpc:\$regionid:\$accountid:natgateway/\$natgatewayid
	acs:ecs:\$regionid:\$accountid:instance/\$instanceid
vpc>DeleteNatGateway	acs:vpc:\$regionid:\$accountid:natgateway/\$natgatewayid
	acs:ecs:\$regionid:\$accountid:instance/\$instanceid
vpc>CreateBandwidthPackage	acs:vpc:\$regionid:\$accountid:bandwidthpackage/*
vpc:DescribeBandwidthPackages	acs:vpc:\$regionid:\$accountid:bandwidthpackage/\$bandwidthpackageid
	acs:vpc:\$regionid:\$accountid:bandwidthpackage/*
vpc:ModifyBandwidthPackageSpec	acs:vpc:\$regionid:\$accountid:bandwidthpackage/\$bandwidthpackageid
vpc:ModifyBandwidthPackageAttribute	acs:vpc:\$regionid:\$accountid:bandwidthpackage/\$bandwidthpackageid
vpc:AddBandwidthPackageIps	acs:vpc:\$regionid:\$accountid:bandwidthpackage/\$bandwidthpackageid
vpc:RemoveBandwidthPackageIps	acs:vpc:\$regionid:\$accountid:bandwidthpackage/\$bandwidthpackageid
vpc>DeleteBandwidthPackage	acs:vpc:\$regionid:\$accountid:bandwidthpackage/\$bandwidthpackageid

API	ARN format
vpc:CreateForwardEntry	acs:vpc:\$regionid:\$accountid:forwardtable/\$forwardtableid
vpc>DeleteForwardEntry	acs:vpc:\$regionid:\$accountid:forwardtable/\$forwardtableid
vpc:ModifyForwardEntry	acs:vpc:\$regionid:\$accountid:forwardtable/\$forwardtableid
vpc:DescribeForwardTableEntries	acs:vpc:\$regionid:\$accountid:forwardtable/\$forwardtableid
vpc:CreateSnatEntry	acs:vpc:\$regionid:\$accountid:snattable/*
vpc:ModifySnatEntry	acs:vpc:\$regionid:\$accountid:snattable/\$snattableid
vpc:DescribeSnatTableEntries	acs:vpc:\$regionid:\$accountid:snattable/\$snattableid
vpc>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:customergateway/*
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

API	ARN format
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:ecs:\$regionid:\$accountid:instance/\$instanceid
ModifyGlobalAccelerationInstanceSpec	acs:ecs:\$regionid:\$accountid:instance/\$instanceid
ModifyGlobalAccelerationInstanceAttributes	acs:ecs:\$regionid:\$accountid:instance/\$instanceid
vpc>DeleteGlobalAccelerationInstance	acs:ecs:\$regionid:\$accountid:instance/\$instanceid
vpc:DescribeGlobalAccelerationInstances	acs:vpc:\$regionid:\$accountid:globalaccelerationinstance/*
AddGlobalAccelerationInstanceEip	acs:vpc:\$regionid:\$accountid:globalaccelerationinstance/\$globalaccelerationinstanceid acs:vpc:\$regionid:\$accountid:eip/\$allocationid
RemoveGlobalAccelerationInstanceEip	acs:vpc:\$regionid:\$accountid:globalaccelerationinstance/\$globalaccelerationinstanceid acs:vpc:\$regionid:\$accountid:eip/\$allocationid

API	ARN format
vpc:DescribeServerRelatedGlobalAccelerationInstances	acs:vpc:\$regionid:\$accountid:globalaccelerationinstance/*
	acs:ecs:\$regionid:\$accountid:instance/\$instanceid

4 Common parameters

common request parameters

Common request parameters are request parameters used by each API.

Table 4-1: Common request parameters

Name	Type	Required	Description
Format	String	No	The format of the response. Valid values: JSON (default) XML
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.
SignatureMethod	String	Yes	The algorithm used to create the request signature. Valid value: HMAC-SHA1
Timestamp	String	Yes	The time at which the request is signed in the YYYY-MM-DDThh:mm:ssZ format. For example, 2013-01-10T12:00:00Z.
SignatureVersion	String	Yes	The signature version to use. Valid value: 1.0
SignatureNonce	String	Yes	A random number for the signature to prevent from network attacks. Different random numbers must be used for different requests.

Common response parameters

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

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>
  <!--The returned result-->
    <RequestId>4C467B38-3910-447D-87BC-AC049166F216</RequestId>
  <!--The returned result-->
</Action+Response>
```

- JSON format

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

5 Virtual Private Cloud (VPC)

5.1 CreateVpc

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 can contain 2-128 characters including a-z, A-Z, 0-9, underlines, and hyphens but cannot start with <code>http://</code> or <code>https://</code> .
Description	String	N	The description of the VPC.

Name	Type	Required	Description
			The description can contain 2-256 characters, but cannot start with <code>http://</code> or <code>https://</code> .
ClientToken	String	No	A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be unique. It cannot exceed 64 ASCII characters.
UserCidr	String	No	The customer-side CIDR block. Separate multiple CIDR blocks by commas.

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.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<CreateVpcResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
  <RouteTableId>vtb-bp145q7glnuzdvzu21pom</RouteTableId>
  <VRouterId>vrt-bp1lh10taikrteen800xx</VRouterId>
  <VpcId>vpc-bp15zckdt37pq72zvw3</VpcId>
</CreateVpcResponse>
```

- JSON format

```
{
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0",
  "RouteTableId": "vtb-bp145q7glnuzdvzu21pom",
  "VRouterId": "vrt-bp1lh10taikrteen800xx",
  "VpcId": "vpc-bp15zckdt37pq72zvw30k"
```

```
}
```

5.2 DeleteVpc

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.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<DeleteVpcResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
</DeleteVpcResponse>
```

- JSON format

```
{
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
```

```
}
```

5.3 DescribeVpcs

Query the created VPCs in a region.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeVpcs
RegionId	String	No	The region where the VPC is located. You can obtain the region ID by calling the DescribeRegions API.
VpcId	String	No	The ID of the VPC. Up to 20 VPCs can be specified. Separate multiple VPCs using commas.
Isdefault	Boolean	No	Whether to query the default VPC in the specified region. Valid value: <code>true</code> (Default): Query all VPCs in the specified region. <code>false</code>: 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 the default value is 10.

Response parameters

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

Table 5-1: Vpc

Name	Type	Description
VpcId	String	The ID of the VPC.
RegionId	String	The region where the VPC is located.
Status	String	The status of the VPC. Valid value: - Pending: configuring - Available: available
VpcName	String	The name of the VPC.
VSwitchIds	String	A list of VSwitches in the VPC.
CidrBlock	String	The CIDR block of the VPC.
VRouterId	String	The ID of the VRouter.
Description	String	The description of the VPC.
CreationTime	String	The time when the VPC is created.
IsDefault	Boolean	Whether the VPC is the default VPC in the region.
UserCidrs	String	A list of customer-side CIDR blocks.

Examples**Request example**

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<CreateVpcResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
  <RouteTableId>vtb-bp145q7glnuzdvzu21pom</RouteTableId>
  <VRouterId>vrt-bp1lhl0taikrteen800xx</VRouterId>
  <VpcId>vpc-bp15zckdt37pq72zvw3</VpcId>
```

```
</CreateVpcResponse>
```

- JSON format

```
{
  "PageNumber": 1,
  "Vpcs": {
    "VPC": [
      {
        "VpcName": "vpc1",
        "Description": "",
        "IsDefault": false,
        "ResourceGroupId": "rg-acfmxazb4ph6aiy",
        "UserCidrs": {
          "UserCidr": [ ]
        },
        "NatGatewayIds": {
          "NatGatewayIds": [ ]
        },
        "RouterTableIds": {
          "RouterTableIds": [
            "vtb-bp145q7glnuzdvzu21pom"
          ]
        },
        "VpcId": "vpc-bp15zckdt37pq72zvw30k",
        "VRouterId": "vrt-bp1lh10taikrteen80oxx",
        "CreationTime": "2018-04-18T15:02:37Z",
        "Status": "Available",
        "CidrBlock": "10.0.0.0/24",
        "Vswitchids ": {
          "VSwitchId": [ ]
        },
        "RegionId": "cn-hangzhou"
      }
    ]
  },
  "TotalCount": 1,
  "PageSize": 10,
  "RequestId": "9B941224-B647-4644-A746-641906D6B954"
}
```

5.4 ModifyVpcAttribute

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 name of the VPC.
VpcName	String	No	The name of the VPC. The name can contain 2-128 characters including a-z, A-Z, 0-9, underlines, and hyphens. The name must

Name	Type	Required	Description
			start with an English letter, but cannot start with <code>http://</code> or <code>https://</code> .
Description	String	No	The description of the VPC. The description can contain 2-256 characters. The description must start with English letters, but cannot start with <code>http://</code> or <code>https://</code> .

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<ModifyVpcAttributeResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
</ModifyVpcAttributeResponse>
```

- JSON format

```
{
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0",
  "RouteTableId": "vtb-bp145q7glnuzdvzu21pom",
  "VRouterId": "vrt-bp1lh10taikrteen800xx",
  "VpcId": "vpc-bp15zckdt37pq72zvw30k"
}
```

6 VRouter

6.1 DescribeVRouters

Query the list of VRouters in a region.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeVRouters
RegionId	String	No	The region where the VPC is located. You can obtain the region ID by calling the DescribeRegions API.
VRouterId	String	No	The ID of the VRouter.
PageNumber	Integer	No	The number of pages to return. The default value is 1.
PageSize	Integer	No	The number of rows per page. The maximum value is 50 and the default value is 10.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
TotalCount	String	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	String	The number of entries on the current page.
VRouters	List	A list of VRouters.

Table 6-1: VRouter

Name	Type	Description
VRouterId	String	The ID of the VRouter.
RegionId	String	The region of the VPC.
VpcId	String	The ID of the VPC to which the VRouter belongs.
RouteTableIds	String	The ID of the route table of the VRouter.
VRouterName	String	The name of the VRouter.

Name	Type	Description
Description	String	The description of the VRouter.
CreationTime	String	The time when the VRouter was created.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DescribeVRouters
&RegionId=us-west-1
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<CreateVpcResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
  <RouteTableId>vtb-bp145q7glnuzdvzu21pom</RouteTableId>
  <VRouterId>vrt-bp1lh10taikrteen80oxx</VRouterId>
  <VpcId>vpc-bp15zckdt37pq72zvw3</VpcId>
</CreateVpcResponse>
```

- JSON format

```
{
  "PageNumber": 1,
  "TotalCount": 1,
  "VRouters": {
    "VRouter": [
      {
        "VRouterName": "",
        "RouteTableIds": {
          "RouteTableId": [
            "vtb-rj9ybe3y0u41mmjspmop0"
          ]
        },
        "CreationTime": "2018-03-22T07:46:20Z",
        "Description": "",
        "RegionId": "us-west-1",
        "VRouterId": "vrt-rj98khsezfqjrxmv17cy",
        "VpcId": "vpc-rj905wotv6y030t1zz5v1"
      }
    ]
  },
  "PageSize": 10,
  "RequestId": "CB2793A8-845F-444C-8E93-76F1BBDF9C78"
```

```
}
```

6.2 ModifyVRouterAttribute

Modify the name and description of a VRouter.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: ModifyVRouterAttribute
VRouterId	String	Yes	The ID of the VRouter.
VRouterName	String	No	The name of the VRouter. The name can contain 2-128 characters including a-z, A-Z, 0-9, underlines, and hyphens. but cannot start with http:// or https://.
Description	String	No	The description of the VRouter. The description can contain 2-256 characters, and must start with English letters but cannot start with http:// or https://.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<ModifyVRouterAttributeResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
</ModifyVRouterAttributeResponse>
```

- JSON format

```
{
```

```
"RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0",  
"RouteTableId": "vtb-bp145q7glnuzdvzu21pom",  
"VRouterId": "vrt-bp1hl0taikrteen800xx",  
"VpcId": "vpc-bp15zckdt37pq72zvw30k"  
}
```

7 Route table

7.1 CreateRouteTable

Create a custom route table.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: CreateRouteTable
RegionId	String	Yes	The region ID of the VPC to which the route table belongs. You can obtain the region ID by calling the DescribeRegions API.
VpcId	String	Yes	The ID of the VPC to which the custom route table belongs.
RouteTableName	String	No	The name of the route table. The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, periods, underlines, and hyphens, and must start with an English letter. The name cannot start with <code>http://</code> or <code>https://</code> .
Description	String	No	The description of the route table. The description can contain from 2 to 256 characters. The description must start with English letters, but cannot start with <code>http://</code> or <code>https://</code> .

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
RouteTableId	String	The ID of the route table.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=CreateRouteTable
&RegionId=cn-qingdao
&RouteTableName=myRouteTable
&VpcId=vpc-m5epxxxxxxxxxxxxxx
```

&CommonParameters**Response example**

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<CreateRouteTableResponse>
  <RequestId>62172DD5-6BAC-45DF-8D44-xxxxxxx</RequestId>
  <RouteTableId> "vtb-m5evbtbptxxxxxxxxxx"</RouteTableId>
</CreateRouteTableResponse>
```

- JSON format

```
{
  "RequestId": "62172DD5-6BAC-45DF-8D44-xxxxxxx",
  "RouteTableId": "vtb-m5evbtbptxxxxxxxxxx"
}
```

7.2 ModifyRouteTableAttributes

Modify the name and description of a route table.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: <code>ModifyRouteTableAttributes</code>
RegionId	String	Yes	The region ID of the VPC to which the route table belongs. You can obtain the region ID by calling the DescribeRegions API.
RouteTableId	String	Yes	The ID of the route table.
RouteTableName	String	No	The name of the route table. The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, periods, underlines, and hyphens, and must start with an English letter. The name cannot start with <code>http://</code> or <code>https://</code> .
Description	String	No	The description of the route table. The description can contain from 2 to 256 characters. The description must start with English letters, but cannot start with <code>http://</code> or <code>https://</code> .

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyRouteTableAttributes
&RegionId=cn-qingdao
&RouteTableName=myRouteTable
&RouteTableId=vtb-m5evbtbptnxxxxxxx
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<ModifyRouteTableAttributesResponse>
  <RequestId>62172DD5-6BAC-45DF-8D44-xxxxxxx</RequestId>
</ModifyRouteTableAttributesResponse>
```

- JSON format

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

7.3 AssociateRouteTable

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

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: AssociateRouteTable
RegionId	String	Yes	The region ID of the VPC to which the route table belongs. You can obtain the region ID by calling the DescribeRegions API.
RouteTableId	String	Yes	The ID of the route table.
VSwitchId	string	No	The ID of the VSwitch.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=AssociateRouteTable
&RegionId=cn-qingdao
&RouteTableId=vtb-m5evbtbptnxxxxxxx
&VSwitchId=vsw-m5e3r57pxxxxxxxxxxxxxxx
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<AssociateRouteTableResponse>
  <RequestId>62172DD5-6BAC-45DF-8D44-xxxxxxx</RequestId>
</AssociateRouteTableResponse>
```

- JSON format

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

7.4 UnassociateRouteTable

Unbind a route table from a VSwitch.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: UnassociateRouteTable
RegionId	String	Yes	The region ID of the VPC to which the route table belongs. You can obtain the region ID by calling the DescribeRegions API.
RouteTableId	String	Yes	The ID of the route table.
VSwitchId	String	No	The ID of the VSwitch.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=UnassociateRouteTable
&RegionId=cn-qingdao
&RouteTableId=vtb-m5evbtbptnxxxxxxx
&VSwitchId=vsw-m5e3r57pxxxxxxxxxxxxxxx
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<UnassociateRouteTableResponse>
  <RequestId>62172DD5-6BAC-45DF-8D44-xxxxxxx</RequestId>
</UnassociateRouteTableResponse>
```

- JSON format

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

7.5 DeleteRouteTable

Delete a custom route table.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DeleteRouteTable
RegionId	String	Yes	The region ID of the VPC to which the VRouter belongs. You can obtain the region ID by calling the DescribeRegions API.
RouteTableId	String	Yes	The ID of the route table.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DeleteRouteTable
&RegionId=cn-qingdao
&RouteTableId=vtb-m5evbtbptnxxxxxxx
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<DeleteRouteTableResponse>
  <RequestId>62172DD5-6BAC-45DF-8D44-xxxxxxx</RequestId>
</DeleteRouteTableResponse>
```

- JSON format

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

7.6 DescribeRouteTableList

Query a route table.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeRouteTableList
RouterType	String	No	The type of the router to which the route table belongs . Valid value: - VRouter (default): VRouter - VBR: VBR
VpcId	String	No	The ID of the VRouter to which the route table belongs. The value of the RouterType parameter is set to VRouter automatically when this parameter is specified.

Name	Type	Required	Description
RouteTableId	String	No	The ID of the route table.
PageNumber	Integer	No	The number of pages to return. The default value is 1.
PageSize	Integer	No	The number of rows per page. The maximum value is 50 and the default value is 10.

Response parameters

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

Table 7-1: RouteTableList

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 VRouter to which the route table belongs.
RouteTableId	String	The ID of the route table.
RouteTableType	String	The type of route table. Valid value: • Custom: A custom route table • System: A system route table
CreationTime	String	The time when the route table was created. The form is YYYY-MM-DDThh:mmZ.
RouteTableName	String	The name of the route table.
Description	String	The description of the route table.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DescribeRouteTableList
&RegionId=cn-qingdao
&RouteTableName=myRouteTable
&VpcId=vpc-m5epxxxxxxxxxxxxx
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
<
DescribeRouteTableListsResponse>
  <Code>200</Code>
  <Message>successful</Message>
  <PageNumber>1</PageNumber>
  <PageSize>10</PageSize>
  <RequestId>87261511-FEB9-4BEC-85BF-70XXXXXXXXXX</RequestId>
  <RouterTableList>
    <RouterTableListType>
      <CreationTime>2018-08-03T08:14:54Z</CreationTime>
      <Description>ddd</Description>
      <RouteTableId>vtb-m5evbtbptnx2bXXXXXXXXXX</RouteTableId>
      <RouteTableName>aaa1111</RouteTableName>
      <RouteTableType>Custom</RouteTableType>
      <RouterId>vrt-m5egeuhgj52xgXXXXXXXXXX</RouterId>
      <RouterType>VRouter</RouterType>
      <VSwitchIds>
        <VSwitchId>vsw-m5e3r57pxkgijXXXXXXXXXX</VSwitchId>
      </VSwitchIds>
      <VpcId>vpc-m5epe3ag3qXXXXXXXXXX</VpcId>
    </RouterTableListType>
  </RouterTableList>
  <Success>true</Success>
  <TotalCount>1</TotalCount>
</DescribeRouteTableList>
```

- JSON format

```
{
  "code": "200",
  "message": "successful",
  "pagenumber": 1,
  "pagesize": 10,
  "requestId": "87261511-FEB9-4BEC-85BF-70XXXXXXXXXX",
  "routerTableList": {
    "RouterTableListType": [
      {
        "CreationTime": "2018-08-03T08:14:54Z",
        "Description": "ddd",
        "RouteTableId": "vtb-m5evbtbptnx2bXXXXXXXXXX",
        "RouteTableName": "aaa1111",
        "RouteTableType": "Custom",
        "RouterId": "vrt-m5egeuhgj52xgXXXXXXXXXX",
        "routerType": "VRouter"
      }
    ]
  }
}
```

```

    "Vswitchids ":{
      "VSwitchId": [
        "vsw-m5e3r57pxkgijXXXXXXXXXX"
      ]
    },
    "VpcId": "vpc-m5epe3ag3qXXXXXXXXXX"
  }
]
},
"Success": true,
"TotalCount": 1
}

```

7.7 CreateRouteEntry

Create a route entry for a VRouter or VBR.

Note the following before creating a route entry for a VRouter:

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

Note the following when calling this API to add route entries for a VBR:

- Up to 48 route entries can be created for a route table.

- The **NextHopList** parameter is not supported.
- The destination CIDR block (**DestinationCidrBlock**) of the custom route entry cannot be 100.64.0.0/10 or be included in 100.64.0.0/10.
- The destination CIDR blocks of (**DestinationCidrBlock**) of the route entries in the same route table cannot be the same.
- If the destination CIDR block (**DestinationCidrBlock**) is an IP address, it is processed by a 32-bit mask.
- Multiple route entries can point to the same next hop (**NextHopId**).
- The next hop (**NextHopId**) of the route entry must be a router interface associated with the VBR.
- The route entry can only be added when the status of VBR is Active and the status of the corresponding physical connection is Enabled and not financially locked.
- Only common route entries (non- ECMP) can be added. You must specify the **DestinationCidrBlock**, **NextHopType**, and **NextHopId** parameters, and do not need to specify the **HopList** parameter.

Request parameters

name	Parameter	Required	Description
Action	String	Yes	The action to perform. Valid value: vpc: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. (Default) • 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: ECS instance (Default) • VpnGateway: VPN Gateway

name	Parameter	Required	Description
			• HaVip: High Availability Virtual IP (HaVip) • RouterInterface: Router interface • NetworkInterface: Elastic Network Interface  Note: This parameter must be specified when creating a common (non-ECMP) route entry.
NextHopId	String	No	The ID of the next hop. The next hop must be in the VPC or VBR to which the router table belongs.  Note: This parameter must be specified when creating a common (non-ECMP) route entry.
NextHopList	List	No	The list of the next hops. The next hop must meet the following requirements: • ECMP route entries are only supported for the VPC route table. • You must specify 2 next hops at least and 4 at most. • The next hops must be the route interfaces pointing to the connected VBRs.  Note: Specify this parameter when you create an ECMP route entry.
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.

Table 7-2: NextHopList

Parameter	Parameters	Required	Description
NextHopType	String	No	The type of the next hop. Valid value: - Instance: ECS instance (default) - HaVip: High Availability Virtual IP (HaVip) - RouterInterface: router interface
NextHopId	String	No	The ID of the next-hop instance.
Enabled	String	Optional	Whether the next hop is available: 0: unavailable 1: available
Weight	Default value: 1.	Optional	The routing weight of the next hop.

Response example

Name	Type	Required
RequestId	String	The ID of the request.

Examples**Request example**

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

Response parameter

- XML format

```
&lt;? xml version="1.0" encoding="UTF-8"? >
<CreateRouteEntryResponse>
  <RequestId>12D086F6-8F31-4658-84C1-006DED011A85</RequestId>
</CreateRouteEntryResponse>
```

- JSON format

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

```
}
```

7.8 DeleteRouteEntry

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	No	The ID of the next-hop instance of the route entry. Specify this parameter when deleting a common (non-ECMP) route entry.
NextHopList	List	No	A list of next hops of the router entries. Specify this parameter when deleting an ECMP route entry.

Table 7-3: NextHopList

Parameter	Type	Required	Description
NextHopType	String	No	The type of the next hop. Valid value: • Instance: ECS instance (Default) - HaVip: High availability virtual IP - RouterInterface: Router interface
NextHopId	String	No	The ID of the next-hop instance.
Enabled	Integer	No	Whether to enable the next hop: • 0: unavailable • 1: available

Parameter	Type	Required	Description
Weight	Integer	No	The routing weight of the next hop.

Response example

Name	Type	Description
RequestId	String	The ID pf the request.

Example

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

```
<? xml version="1.0" encoding="UTF-8"? >
<DeleteRouteEntryResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
</DeleteRouteEntryResponse>
```

- JSON format

```
{
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
}
```

7.9 DescribeRouteTables

Query route entries 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 . Valid value: - VRouter: VRouter - VBR: VBR

Name	Type	Required	Description
RouterId	String	No	The ID of the VRouter or VBR to which the route table belongs.
VRouterId	String	No	The ID of the VRouter to which the route table belongs. The value of the RouterType parameter is set to VRouter automatically when this parameter is specified.
RouteTableId	String	No	The ID of the route table.
PageNumber	Integer	No	The number of pages to return. The default value is 1.
PageSize	Integer	No	The number of rows per page. The maximum value is 50 and the default value is 10.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
TotalCount	String	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	String	The number of entries on the current page.
RouteTables	List	A list of route tables.

Table 7-4: RouteTable

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 VRouter or VBR to which the route table belongs.
VRouterId	String	The ID of the VRouter.
RouteTableId	String	The ID of the route table.
RouteTableType	String	The type of the route table.
CreationTime	String	The time when the route table was created.

Name	Type	Description
RouteEntrys	List	A list of route entries.

Table 7-5: RouteEntry

Name	Type	Description
Type	String	The type of the route entry. Valid values: • System: System route entry • Custom: Custom route entry • BGP : BGP route entry
RouteTableId	String	The ID of the router table to which the route entry belongs.
DestinationCidrBlock	String	The destination CIDR block of the route entry.
NextHopType	String	The type of the next hop.
InstanceId	String	The instance ID of the next hop.
Status	String	The status of the route entry. Valid value: • Pending: Configuring • Available: Available • Modifying: Modifying
RouterId	String	The ID of the VRouter or VBR to which the route table belongs.
NextHops	List	The list of next hops of ECMP route entries.

Table 7-6: NextHop

Name	Type	Description
NextHopType	String	The type of the next hop. Valid value: • Instance: ECS instance (default) HaVip: HaVip RouterInterface: Router interface
NextHopId	String	The ID of the next hop instance.

Name	Type	Description
Enabled	Integer	Whether the next hop is available: 0: Unavailable 1: Available
Weight	Integer	The routing weight of the next hop.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DescribeRouteTables
&RouteTableId=vtb-2zevpmy9th8cxmwtarqg4
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<DescribeRouteTablesResponse>
  <PageNumber>1</PageNumber>
  <TotalCount>1</TotalCount>
  <PageSize>10</PageSize>
  <RequestId>DC668356-BCB4-42FD-9BC3-FA2B2E04B634</RequestId>
  <RouteTables>
    <RouteTable>
      <CreationTime>2017-08-22T10:40:25Z</CreationTime>
      <RouteEntries>
        <RouteEntry>
          <NextHops></NextHops>
          <Status>Available</Status>
          <Type>Custom</Type>
          <InstanceId>ri-2zeo3xzyf38r4urzdpvfs</InstanceId>
          <NextHopType>RouterInterface</NextHopType>
          <RouteTableId>vtb-2zevpmy9th8cxmwtarqg4</RouteTableId>
          <DestinationCidrBlock>10.10.0.0/24</DestinationCidrBlock>
        </RouteEntry>
        <RouteEntry>
          <NextHops></NextHops>
          <Status>Available</Status>
          <Type>Image</Type>
          <InstanceId></InstanceId>
          <NextHopType>service</NextHopType>
          <RouteTableId>vtb-2zevpmy9th8cxmwtarqg4</RouteTableId>
          <DestinationCidrBlock>100.64.0.0/10</DestinationCidrBlock>
        </RouteEntry>
      </RouteEntries>
      <RouteTableId>vtb-2zevpmy9th8cxmwtarqg4</RouteTableId>
      <RouteTableType>System</RouteTableType>
      <VRouterId>vrt-2zefso23vmu6xi3jeiw0z</VRouterId>
    </RouteTable>
  </RouteTables>
```

```
</DescribeRouteTablesResponse>
```

- JSON format

```
{
  "PageNumber": 1,
  "TotalCount": 1,
  "PageSize": 10,
  "RequestId": "DC668356-BCB4-42FD-9BC3-FA2B2E04B634",
  "RouteTables": {
    "RouteTable": [
      {
        "CreationTime": "2017-08-22T10:40:25Z",
        "RouteEntry": {
          "RouteEntry": [
            {
              "NextHops": {
                "NextHop": [ ]
              },
              "Status": "Available",
              "Type": "Custom",
              "InstanceId": "ri-2zeo3xzyf38r4urzdvpfs",
              "NextHopType": "RouterInterface",
              "RouteTableId": "vtb-2zevpmy9th8cxmwtaqq4",
              "DestinationCidrBlock": "10.10.0.0/24"
            },
            {
              "NextHops": {
                "NextHop": [ ]
              },
              "Status": "Available",
              "Type": "System",
              "InstanceId": "",
              "NextHopType": "service",
              "RouteTableId": "vtb-2zevpmy9th8cxmwtaqq4",
              "DestinationCidrBlock": "100.64.0.0/10"
            }
          ]
        },
        "RouteTableId": "vtb-2zevpmy9th8cxmwtaqq4",
        "RouteTableType": "System",
        "VRouterId": "vrt-2zefso23vmu6xi3jeiw0z"
      }
    ]
  }
}
```

8 VSwitch

8.1 CreateVSwitch

Create a VSwitch in the specified VPC.

When calling this interface to create a switch, note:

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

Request parameters

Name	Type	Required or not	Description
Action	String	Yes	The action to perform. Value: CreateVSwitch
ZoneId	String	Yes	The ID of the zone to which the switch belongs. You can obtain the region ID by calling the DescribeZones API.
CidrBlock	String	Yes	The CIDR block of VSwitch. 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. • 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.

Name	Type	Required or not	Description
			If the network segment of the switch is the same as the network segment of the same VPC, there can be only one switch for the VPC.
VpcId	String	Yes	The ID of the VPC to which the VSwitch belongs.
VSwitchName	String	No	The name of the VSwitch. The name must be 1-128 characters in length and must start with English letters. However, the description cannot start with <code>http://</code> or <code>https://</code> .
Description	String	No	The description of the VSwitch. The description must be 2-256 characters in length and must start with English letters. However, the description cannot start with <code>http://</code> or <code>https://</code> .
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.

Response parameters

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

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

```
<? xml version="1.0" encoding="UTF-8"? >
<CreateVSwitchResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
  <VSwitchId>vsw-25naue4gz</VSwitchId>
```

```
</CreateVSwitchResponse>
```

- JSON format

```
{
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0",
  "VSwitchId": "vsw-25naue4gz"
}
```

8.2 DeleteVSwitch

Delete a VSwitch.

Note the following before deleting a VSwitch:

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

Request parameters

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

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<DeleteVSwitchResponse>
```

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

- JSON format

```
{
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
}
```

8.3 DescribeVSwitches

Query the created VSwitches.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeVSwitches
RegionId	String	Yes	The region of the VPC to which the VSwitch belongs. You can obtain the region ID by calling the DescribeRegions API.
VpcId	String	No	The ID of the VPC.
ZoneId	String	No	The ID of the zone to which the VSwitch belongs. You can obtain the region ID by calling the DescribeZones API.
VSwitchId	String	No	The ID of the VSwitch.
Isdefault	Boolean	No	Whether to query the default VSwitch in the specified region. • <code>true</code> (default value): Query all VSwitches in the specified region. • <code>false</code>: 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 the the default value is 10.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
TotalCount	String	The number of queried entries.
PageNumber	Integer	The current page number.

Name	Type	Description
PageSize	String	The number of rows per page.
Vswitches	List	A list of VSwitches.

Table 8-1: VSwitch

Name	Type	Description
VpcId	String	The ID of the VPC to which the VSwitch belongs.
VSwitchId	String	The ID of the VSwitch.
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.
VSwitchName	String	The name of the VSwitch.
Description	String	The description of the VSwitch.
CreationTime	String	The time when the switch was created.
IsDefault	Boolean	Whether the VSwitch is the default VSwitch in the zone.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<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": "17.0.0/24",
        "CreationTime": "2014-10-29T15:21:02Z",
        "Description": "",
        "Status": "Available",
        "VSwitchId": "vsw-25b7pv15t",
        "VSwitchName": "",
        "VpcId": "vpc-257gq642n",
        "ZoneId": "cn-beijing-a"
      }
    ]
  }
}

```

8.4 ModifyVSwitchAttribute

Modifies the name and description of the specified switch.

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

Name	Type	Required	Description
			The description can contain from 2 to 256 characters. The description must start with English letters, but cannot start with http:// or https://.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyVSwitchAttribute
&VSwitchId=vsw-25naue4gz
&VSwitchName=VS02
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<ModifyVSwitchAttributeResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
</ModifyVSwitchAttributeResponse>
```

- JSON format

```
{
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0",
}
```

9 EIP

9.1 AllocateEipAddress

Create an Elastic IP address (EIP).

An available EIP is randomly allocated in the specified region after this API is called. 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	The billing method of the EIP. Valid values: PayByTraffic: EIP is charged by traffic.
InstanceChargeType	String	No	The payment method of the EIP. Valid values: PostPaid (Default): Pay-As-You-Go
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.

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.

Examples

Request example

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

Response example

- XML format

```
&amp;lt;? xml version="1.0" encoding="UTF-8" ? >
&amp;lt;AllocateEipAddressResponse&gt;
  &amp;lt;AllocationId&gt;eip-25877c70x&amp;lt;/AllocationId&gt;
  &amp;lt;EipAddress&gt;123.56.0.206&amp;lt;/EipAddress&gt;
  &amp;lt;RequestId&gt;B6B9F518-60F8-4D81-9242-1207B356754D&amp;lt;
;/RequestId&gt;
&amp;lt;/AllocateEipAddressResponse&gt;
```

- JSON format

```
{
  "AllocationId": "eip-25877c70x",
  "EipAddress": "123.56.0.206",
  "RequestId": "B6B9F518-60F8-4D81-9242-1207B356754D"
}
```

9.2 AssociateEipAddress

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.

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.

Name	Type	Required	Description
			Only the ECS instance in the running or stopped status can be bound. • SlbInstance: An SLB instance of the VPC network After binding, the SLB instance can forward requests from the Internet. • Nat: NAT Gateway If the NAT Gateway has associated with a bandwidth package, submit a ticket to bind an EIP to a NAT Gateway. • HaVip: 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.
InstanceId	String	Yes	The ID of the cloud resource to bind.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<AssociateEipAddressResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
```

```
</AssociateEipAddressResponse>
```

- JSON format

```
{
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
}
```

9.3 UnassociateEipAddress

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 type of the cloud resource to be unbound. Valid value: • EcsInstance(Default): an ECS instance in a VPC • SlbInstance: an SLB instance in a VPC • Nat: NAT Gateway • HaVip: HAVIP
InstanceId	String	Yes	The ID of the cloud resource to be unbound.
Force	String	Yes	Whether to unbind the EIP from the cloud resource by force. Valid value: • False(Default) • True  Note: Only NAT Gateway supports force unbinding. The SNAT table or the DNAT table associated with the EIP will be deleted if the EIP is unbound by force.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<UnassociateEipAddressResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
</UnassociateEipAddressResponse>
```

- JSON format

```
{
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
}
```

9.4 DescribeEipAddresses

Queries the EIP that has been created for the specified region.

Query the created EIPs in a specified region.

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeEipAddresses
RegionId	String	Yes	The region of the EIP. You can obtain the region ID by calling the DescribeRegions API.
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.
AllocationId	String	No	The ID of the EIP.

Name	Type	Required	Description
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 Each ECS and SLB instance can only binds an EIP. However, a NAT Gateway can bind multiple EIPs.
AssociatedInstanceId	String	No	The ID of the cloud resource that the EIP is bound to.
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 parameter

Name	Type	Description
RequestId	String	The ID of the request.
TotalCount	String	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	String	The number of entries on the current page.
EipAddresses	List	The detailed information of queried EIPs.

Table 9-1: EipAddress

Name	Type	Description
RegionId	String	The region where the EIP is located.
IpAddress	String	The address of the EIP.
AllocationId	String	The ID of the EIP.
Status	String	The status of the EIP: Associating: The EIP is being bound.

Name	Type	Description
		• 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.
InstanceType	String	The instance type of that the EIP is bound.
InstanceId	String	The ID of the instance that is being bound.
Bandwidth	String	The bandwidth of the EIP in Mbps.
InternetChargeType	String	Billing method.
AllocationTime	String	The time at which the EIP is created.
OperationLocks	String	The reason for being locked. Valid value: • financial: overdue • security: security reasons

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<DescribeEipAddressesResponse>
  <RequestId>7EEF2D6B-D207-4197-AE37-01279C888757</RequestId>
  <PageNumber>1</PageNumber>
  <EipAddresses>
    <EipAddress>
      <ChargeType>PostPaid</ChargeType>
      <AllocationTime>2018-01-15T11:17:30Z</AllocationTime>
      <ResourceGroupId>rg-acfmxb4ph6aiy</ResourceGroupId>
      <InstanceId></InstanceId>
      <Description></Description>
      <IpAddress>59.110.xx.xx</IpAddress>
      <AllocationId>eip-2ze88m67qx5zxxxxxx</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>
</DescribeEipAddressesResponse>

```

9.5 ModifyEipAddressAttribute

Modifies the name, description information, and bandwidth peak of the specified EIP.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: ModifyEipAddressAttribute
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. The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens. The name must start with an English letter, but cannot start with <code>http://</code> or <code>https://</code> .
Description	String	No	The description of the EIP. The description can contain from 2 to 256 characters. The description must start with English letters, but cannot start with <code>http://</code> or <code>https://</code> .

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyEipAddressAttribute
&AllocationId=eip-25877c70x
&Name=eip1
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<ModifyEipAddressAttributeResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
</ModifyEipAddressAttributeResponse>
```

- JSON format

```
{
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
}
```

9.6 ReleaseEipAddress

Release the specified 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.

Examples

Request example

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

Response example

- XML format

```
<<? xml version="1.0" encoding="UTF-8" ? >
<ReleaseEipAddressResponse>
  <RequestId>748C38F6-9A3D-482E-83FB-DB6C39C68AEA</RequestId>
</ReleaseEipAddressResponse>
```

- JSON format

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

10 Router interface

10.1 CreateRouterInterface

Create a router interface.

When calling this API to create a router interface, note:

- Up to one pair of interconnected router interfaces can be created between two VRouter.
- 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 destination CIDR blocks of (**DestinationCidrBlock**) of the route entries in the same route table cannot be the same.
- The router interface created for a Virtual Border Router (VBR) must act as the connection initiator.

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 associated with the router interface. Valid values: • VRouter: VRouter • VBR: VBR
AccessPointId	String	No	The ID of the access point to which the VBR belongs. You can obtain the region ID by calling the DescribeAccessPoints API.  Note: You must specify this parameter in the scenario of physical access.
RouterId	String	Yes	The ID of the router associated with the router interface.

Name	Type	Required	Description
Role	String	Yes	The role of the router interface. Valid value: - InitiatingSide: Connection initiator. - AcceptingSide: Connection receiver.
Spec	String	Yes	The specification of the router interface. The following are available specifications and the corresponding bandwidths: - 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  Note: The value of Spec is Negative when the role is AcceptingSide.
OppositeRegionId	String	Yes	The region of the connection receiver.
OppositeAccessPointId	String	No	The ID of the access point of the peer router interface.  Note: This parameter is required when the peer router interface is on a VBR and cannot be modified after the router interface is created.
OppositeRouterType	String	No	The type of the router associated with the peer router interface. Valid values:

Name	Type	Required	Description
			• VRouter: VRouter • VBR: VBR
OppositeRouterId	String	No	The ID of the peer router.
OppositeInterfaceId	String	No	The ID of the peer router interface.
OppositeInterfaceOwnerId	String	No	The ID of the owner of the peer router interface.
HealthCheckSourceIp	String	No	The source IP address used to perform health check. It must be an unused IP address of the local VPC.  Note: You can specify this parameter in the scenario of physical access.
HealthCheckTargetIp	String	No	The destination IP address of health check.  Note: This parameter is required when the HealthCheckSourceIp parameter is specified.
Name	String	No	The name of the router interface. The name can contain 2-128 characters including a-z, A-Z, 0-9, periods, underscores, and hyphens. It must start with English letters, but cannot start with <code>http://</code> or <code>https://</code>.
Description	String	No	The description of the router interface. The description can contain 2-256 characters. It must start with English letters, but cannot start with <code>http://</code> or <code>https://</code>.
InstanceChargeType	String	No	The billing method of the router interface. Valid values: • PostPaid (default): Pay-As-You-Go
ClientToken	String	No	A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and is guaranteed to be unique among different requests. The maximum length is 64 ASCII characters.

Response parameters

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

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=CreateRouterInterface
&RegionId=cn-beijing
&Role=InitiatingSide
&OppositeRegionId=cn-beijing
&Spec=Mini.5
&RouterType=VRouter
&RouterId=vrt-2zepuy8qbrq6yhdje53t6
&OppositeRouterId=vrt-2zefso23vmu6xi3jeiw0z
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<CreateRouterInterfaceResponse>
  <RequestId>980960B0-2969-40BF-8542-EBB34FD358AB</RequestId>
  <RouterInterfaceId>ri-2ze7fbuohmxxxxxx</RouterInterfaceId>
</CreateRouterInterfaceResponse>
```

- JSON format

```
{
  "RequestId": "980960B0-2969-40BF-8542-EBB34FD358AB"
  "RouterInterfaceId": "ri-2ze7fbuohmxxxxxx"
}
```

10.2 DescribeRouterInterfaces

Query router interfaces in a region.

Request parameters

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

Name	Type	Required	Description
RegionId	String	Yes	The region of the router interface. You can obtain the region ID by calling the DescribeRegions API.
Filter.n.Key	String	No	Filter keys. Up to five filters are supported. The valid value for n is [1, 5]. The relationship between the values of a filter is "or". A router interface is returned as long as one filter is met. The relationship between each filter is "and". A router interface is returned only when all the filters are met. 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 for 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	String	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	String	The number of entries on the current page.
RouterInterfaceSet	List	A list of router interfaces.

Table 10-1: RouterInterface

Name	Type	Description
RouterType	String	The type of the VRouter to which the route table belongs. Valid value: • VRouter: VRouter • VBR: VBR
RouterId	String	The ID of the VRouter to which the route table belongs.
VRouterId	String	The ID of the VRouter.
RouteTableId	String	The ID of the route table.
RouteTableType	String	The type of the route table.
CreationTime	String	The time when the route table is created.
RouteEntries	List	A list of route entries.

Table 10-2: RouteEntry

Name	Type	Description
Type	String	The type of the route entry. Valid value: • System: system route • Custom: custom route • BGP: BGP route
RouteTableId	String	The ID of the route table to which the route entry belongs.

Name	Type	Description
DestinationCidrBlock	String	The destination CIDR block of the route entry.
NextHopType	String	The type of the next hop.
InstanceId	String	The ID of the next-hop instance.
Status	String	The status of the route entry. Valid value: - Pending: configuring - Available: available - Modifying: modifying
RouterId	String	The ID of the VRouter to which the route entry belongs.
NextHops	List	The next hop list of ECMP routing.

Table 10-3: NextHop

Name	Type	Description
NextHopType	String	The type of next hop. Valid value: - Instance: ECS instance (default) - HaVip: High availability virtual IP - RouterInterface: Router interface
NextHopId	String	The ID of the next-hop instance.
Enabled	Integer	Whether to enable the next hop: 1: enable 0: not enable
Weight	Integer	The routing weight of the next hop.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DescribeRouteTables
&RouteTableId=vtb-2zevpm9th8cxmwtarqg4
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
    <DescribeRouteTablesResponse>
    <PageNumber>1</PageNumber>
    <TotalCount>1</TotalCount>
    <PageSize>10</PageSize>
    <RequestId>DC668356-BCB4-42FD-9BC3-FA2B2E04B634</RequestId>
    <RouteTables>
    <RouteTable>
    <CreationTime>2017-08-22T10:40:25Z</CreationTime>
    <RouteEntrys>
    <RouteEntry>
    <NextHops></NextHops>
    <Status>Available</Status>
    <Type>Custom</Type>
    <InstanceId>ri-2zeo3xzyf38r4urzdvpvfs</InstanceId>
    <NextHopType>RouterInterface</NextHopType>
    <RouteTableId>vtb-2zevpmy9th8cxmwтарqg4</RouteTableId>
    <DestinationCidrBlock>10.10.0.0/24</DestinationCidrBlock>
    </RouteEntry>
    <RouteEntry>
    <NextHops></NextHops>
    <Status>Available</Status>
    <Type>System</Type>
    <InstanceId></InstanceId>
    <NextHopType>service</NextHopType>
    <RouteTableId>vtb-2zevpmy9th8cxmwтарqg4</RouteTableId>
    <DestinationCidrBlock>100.64.0.0/10</DestinationCidrBlock>
    </RouteEntry>
    </RouteEntrys>
    <RouteTableId>vtb-2zevpmy9th8cxmwтарqg4</RouteTableId>
    <RouteTableType>System</RouteTableType>
    <VRouterId>vrt-2zefso23vmu6xi3jeiw0z</VRouterId>
    </RouteTable>
    </RouteTables>
    </DescribeRouteTablesResponse>
```

- JSON format

```
{
  "PageNumber": 1,
  "TotalCount": 1,
  "PageSize": 10,
  "RequestId": "DC668356-BCB4-42FD-9BC3-FA2B2E04B634",
  "RouteTables": {
    "RouteTable": [
      {
        "CreationTime": "2017-08-22T10:40:25Z",
        "RouteEntrys": {
          "RouteEntry": [
            {
              "NextHops": {
                "NextHop": [ ]
              },
              "Status": "Available",
              "Type": "Custom",
              "InstanceId": "ri-2zeo3xzyf38r4urzdvpvfs",
              "NextHopType": "RouterInterface",
            },
            {
              "NextHops": {
                "NextHop": [ ]
              },
              "Status": "Available",
              "Type": "System",
              "InstanceId": "",
              "NextHopType": "service",
            }
          ]
        }
      }
    ]
  }
}
```

```

8cxmwтарqg4",
    "RouteTableId": "vtb-2zevpmy9th8cxmwтарqg4",
    "DestinationCidrBlock": "10.10.0.0/24"

    "NextHops": {
        "NextHop": [ ]

    "Status": "Available",
    "Type": "System",
    "InstanceId": "",
    "NextHopType": "service",
    "RouteTableId": "vtb-2zevpmy9th8cxmwтарqg4",
    "DestinationCidrBlock": "100.64.0.0/10"

    "RouteTableId": "vtb-2zevpmy9th8cxmwтарqg4",
    "RouteTableType": "System",
    "VRouterId": "vrt-2zefso23vmu6xi3jeiw0z"

```

10.3 ConnectRouterInterface

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 of the router interface. 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.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
    <ConnectRouterInterfaceResponse>
        <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
    </ConnectRouterInterfaceResponse>
```

- JSON format

```
"RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
```

10.4 ActivateRouterInterface

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 of the router interface. You can obtain the region ID by calling the DescribeRegions API.

Name	Type	Required	Description
RouterInterfaceId	String	Yes	The ID of the router interface.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
    <ActivateRouterInterfaceResponse>
        <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
    </ActivateRouterInterfaceResponse>
```

- JSON format

```
"RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
```

10.5 DeactivateRouterInterface

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:

Name	Type	Required	Description
			DeactivateRouterInterface
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.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
    <ActivateRouterInterfaceResponse>
        <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
    </ActivateRouterInterfaceResponse>
```

- JSON format

```
"RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
```

10.6 ModifyRouterInterfaceSpec

Modify the specification of a router interface.

After calling the API, the router interface changes to the Activating status. After the activation, the router interface changes to the Active status.



Note:

You cannot modify the specification of a delinquent router interface.

Request parameters

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

Response parameters

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

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
    <ModifyRouterInterfaceSpecResponse>
        <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
        <Spec>Middle. 2</Spec>
```

```
</ModifyRouterInterfaceSpecResponse>
```

- JSON format

```
"RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0",
"Spec": "Middle. 2"
```

10.7 ModifyRouterInterfaceAttribute

Modify the configurations of a router interface.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: <code>ModifyRouterInterfaceAttribute</code>
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.
AccessPointId	String	No	The ID of the access point to which the VBR belongs. You can obtain the region ID by calling the DescribeRegions API.  Note: You must specify this parameter in the scenario of physical access.
RouterId	String	Yes	The ID of the VRouter associated with 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.
OppositeRouterId	String	No	The ID of the peer router.
OppositeInterfaceId	String	No	The ID of the peer router interface.

Name	Type	Required	Description
OppositeInterfaceOwnerId	String	No	The 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 an unused IP address of the local VPC.  Note: You can specify this parameter in the scenario of physical access.
HealthCheckTargetIp	String	No	The destination IP address of health check.  Note: This parameter is required when the HealthCheckSourceIp parameter is specified.
Name	String	No	The name of the router interface. The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens. The name must start with an English letter, but cannot start with <code>http://</code> or <code>https://</code>.
Description	String	No	The description of the router interface. The description can contain from 2 to 256 characters. The description must start with English letters, but cannot start with <code>http://</code> or <code>https://</code>.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

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

Response example

- XML format

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

- JSON format

```
"RequestId": "980960B0-2969-40BF-8542-EBB34FD358AB"
```

10.8 DeleteRouterInterface

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.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
    <DeleteRouterInterfaceResponse>
        <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
    </DeleteRouterInterfaceResponse>
```

- JSON format

```
"RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
```

11 Physical connection

11.1 CreatePhysicalConnection

Create a physical connection.

After the physical connection changes to the Initial status, contact the service provider for construction.

Note the following before creating a physical connection:

- The number of physical connections that are not in the Enabled status cannot exceed five.
- If there is a delinquent physical connection in your account, you cannot apply for more physical connection.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: <code>CreatePhysicalConnection</code>
RegionId	String	Yes	The region of the physical connection. You can obtain the region ID by calling the DescribeRegions API.
AccessPointId	String	Yes	The ID of the access point used by the physical connection. You can obtain the region ID by calling the DescribeRegions API.
CircuitCode	String	No	The circuit code provided by the service provider for the physical connection.
LineOperator	String	Yes	The service provider that provides the physical connection. Valid value: • CT: China Telecom • CU: China Unicom • CM: China Mobile • CO: Others in China • Equinix: Equinix • Other: Others outside China
PeerLocation	String	Yes	The geographic location of the local data center.

Name	Type	Required	Description
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(default): 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 redundant physical connection. The redundant physical connection must be in the Allocated, Confirmed, or Enabled status.
Name	String	No	The name of the physical connection. The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, dots, underscores, and hyphens. The name must start with an English letter, but cannot start with <code>http://</code> or <code>https://</code> .
Description	String	No	The description of the physical connection. The description can contain 2-256 characters. It must start with English letters, but cannot start with <code>http://</code> or <code>https://</code> .
ClientToken	String	No	A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and is guaranteed to be unique among different requests. The maximum length is 64 ASCII characters.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
PhysicalConnectionId	String	The ID of the VPC.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=CreatePhysicalConnection
&RegionId=cn-beijing
&AccessPointId=ap-cn-beijing-ft-A
&LineOperator=CT
&PeerLocation=XXX
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<CreatePhysicalConnectionResponse>
  <RequestId>8A6A5EC5-6F6C-4906-9689-56ACE58A13E0</RequestId>
  <PhysicalConnectionId>pc-*****</PhysicalConnectionId>
</CreatePhysicalConnectionResponse>
```

- JSON format

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

11.2 CancelPhysicalConnection

Cancel physical connection access. After the cancelling, the physical connection changes to the Canceled status.

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: <code>CancelPhysicalConnection</code>
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.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

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"
```

11.3 DescribePhysicalConnections

Query the created physical connections in a region.

Request parameters

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

Name	Type	Required	Description
			• AccessPointId: The ID of the access point. • Type: The type of the physical connection. The default value is VPC. • LineOperator: The carrier of the physical connection. • Status: The status of the physical connection. • Spec: The specification of the physical connection. • Name: The name of the physical connection.
Filter.n.Value.m	String	No	The corresponding value of the specified filter key. The valid value for m is [1, 5].
PageNumber	Integer	No	The number of pages to return. The default value is 1.
PageSize	Integer	No	The number of rows per page. The maximum value is 50 and the default value is 10.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
TotalCount	String	The number of queried entries.
PageNumber	Integer	The current page number.
Pagesize	String	The number of entries on the current page.
PhysicalConnectionSet	JSON String	A list of physical connections.
PhysicalConnectionSet objects		
PhysicalConnectionId	String	The ID of the physical connection.
AccessPointId	String	The ID of the physical connection access point.
Status	String	The status of the physical connection. • Initial: applying • Approved: approved • Allocating: allocating resources • Allocated: access construction.

Name	Type	Description
		- Confirmed: waiting for user confirmation. - Enabled: enabled. - Rejected: rejected. - Canceled: canceled. - Allocation Failed: resource allocation failed. - Terminated: terminated.
BusinessStatus	String	The payment status of the physical connection. - Normal: normal - FinancialLocked: financially locked - SecurityLocked: locked for security reasons
CreationTime	String	The time when the physical connection was created.
EnabledTime	String	The time when the physical connection was enabled.
LineOperator	String	The carrier of the physical connection: - CT: China Telecom - CU: China Unicom - CM: China Mobile - CO: Others in China - Equinix: Equinix - Other: Others outside China
Spec	String	The specification of the physical connection.
PeerLocation	String	The geographic location of the local data center.
PortType	String	The port type of the physical connection. Valid value: 100Base-T: 100-MB electrical port 1000Base-T(default): 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)

Name	Type	Description
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	String	The circuit code provided by the carrier for the physical connection.
BandWidth	String	The bandwidth of the physical connection.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
    <DescribePhysicalConnectionsResponse>
        <PageNumber>1</PageNumber>
        <TotalCount>1</TotalCount>
        <PageSize>10</PageSize>
        <RequestId>7C07B0AF-4FC0-4BB2-9667-F75812824BCD</RequestId>
        <PhysicalConnectionSet>
            <PhysicalConnectionType>
                <Type>VPC</Type>
                <PhysicalConnectionId>pc-2zeoaxkq3jot5p71qcnuy</PhysicalCo
nnectionId>
                <PeerLocation>XXX-XX District--XXX Road</PeerLocation>
                <CreationTime>2017-12-13T02:28:42Z</CreationTime>
                <Name>TEST</Name>
                <Status>Enabled</Status>
                <AdLocation>XXX--XX-XXX Datacenter XX Network Cabinet XXU</
AdLocation>
                <EnabledTime>2017-12-18T04:01:30Z</EnabledTime>
                <BusinessStatus>Normal</BusinessStatus>
                <LineOperator>CT</LineOperator>
                <PortNumber>1/1/4</PortNumber>
                <AccessPointId>ap-cn-beijing-dx-A</AccessPointId>
                <PortType>100Base-T</PortType>
                <Bandwidth>2</Bandwidth>
            </PhysicalConnectionType>
        </PhysicalConnectionSet>
```

```
</DescribePhysicalConnectionsResponse>
```

- JSON format

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

11.4 ModifyPhysicalConnectionAttribute

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: ModifyPhysicalConnectionAttribute
RegionId	String	Yes	The region of the physical connection.

Name	Type	Required	Description
			You can obtain the region ID by calling the DescribeRegions API.
PhysicalConnectionId	String	Yes	The ID of the physical connection.
LineOperator	String	No	The carrier that provides the physical connection. Valid value: - CT: China Telecom - CU: China Unicom - CM: China Mobile - CO: Others in China - Equinix: Equinix - Other: Others outside China
CircuitCode	String	No	The circuit code provided by the carrier for the physical connection.
PeerLocation	String	No	The geographic location of the local data center.
Bandwidth	String	No	The bandwidth in Mbps of the physical connection. The default value is 100 and the valid value is [2, 10240].
PortType	String	No	The port type of the physical connection. Valid value: 100Base-T: 100-MB electrical port 1000Base-T(default): 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 redundant physical connection. The redundant physical connection must be in the Allocated, Confirmed, or Enabled status.
Name	String	No	The name of the physical connection. The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens. The

Name	Type	Required	Description
			name must start with an English letter, but cannot start with http:// or https://.
Description	String	No	The description of the physical connection. The description can contain from 2 to 256 characters. The description must start with English letters, but cannot start with http:// or https://.
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.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
    <ModifyPhysicalConnectionAttributeResponse>
        <RequestId>8A6A5EC5-6F6C-4906-9689-56ACE58A13E0</RequestId>
    </ModifyPhysicalConnectionAttributeResponse>
```

- JSON format

```
"RequestId": "8A6A5EC5-6F6C-4906-9689-56ACE58A13E0"
```

11.5 TerminatePhysicalConnection

Terminate the access of the physical connection after the physical connection is enabled. The physical connection changes to the Terminating status after the API is called and changes to the Terminated status when the process is completed.

Note the following before terminating a physical connection:

- You can only terminate a physical connection in the Enabled status.
- Before terminating a physical connection, you must delete the Virtual Border Routers (VBRs) associated with the physical connection.

Request parameters

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

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

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

Response example

XML format

```
<? xml version="1.0" encoding="UTF-8"? >
```

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

11.6 EnablePhysicalConnection

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: <code>EnablePhysicalConnection</code>
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.
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.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=EnablePhysicalConnection
&PhysicalConnectionId=pc-2zeoaxkq3xxxxx
&RegionId=cn-beijing
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
    <EnablePhysicalConnectionResponse>
        <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
```

```
</EnablePhysicalConnectionResponse>
```

- JSON format

```
"RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
```

11.7 DeletePhysicalConnection

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

Return Parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
    <DeletePhysicalConnectionResponse>
        <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
```

```
</DeletePhysicalConnectionResponse>
```

- JSON format

```
"RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
```

12 Virtual Border Router

12.1 CreateVirtualBorderRouter

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 owner. The default value is account ID of the user who is calling the API.
VlanId	String	Yes	The VLAN ID of the VBR. Valid value: [1, 2999].  Note: The VLAN IDs of two VBRs of the same physical connection must be different.
CircuitCode	String	Yes	The circuit code provided by the carrier for the physical connection.  Note: Only the owner of the physical connection can specify this parameter.
LocalGatewayIp	String	Yes	The Alibaba Cloud-side IP of the VBR.

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

Response parameters

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

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=CreateVirtualBorderRouter
&PhysicalConnectionId=pc-2zeoaxkq3jotxxxxxxx
&RegionId=cn-hangzhou
&VlanId=10
&CommonParameters
```

Response example

- XML format

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

```
<VbrId>vbr-2zecmmvg5gvu8i4telkhw</VbrId>
</CreateRouterInterfaceResponse>
```

- JSON format

```
"RequestId": "980960B0-2969-40BF-8542-EBB34FD358AB"
"VbrId": "vbr-2zecmmvg5gvu8i4telkhw"
```

12.2 DeleteVirtualBorderRouter

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 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.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DeleteVirtualBorderRouter
&VbrId=pc-2zeoaxkq3xxxxx
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
    <DeleteVirtualBorderRouterResponse>
    <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
    </DeleteVirtualBorderRouterResponse>
```

- JSON format

```
"RequestId": "maid"
```

12.3 DescribeVirtualBorderRouters

Query the created Virtual Border Routers (VBRs).

Request parameters

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

Name	Type	Required	Description
PageSize	Integer	No	The number of rows per page. The maximum value is 50 and the default value is 10.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
TotalCount	String	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	String	The number of entries on the current page.
VirtualBorderRouterSet	List	A list of VBRs. For more information, see Table 12-1: VirtualBorderRouter .

Table 12-1: VirtualBorderRouter

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

Name	Type	Description
PeeringSubnetMask	String	The subnet mask for the Alibaba Cloud-side IP and the client-side IP.
Name	String	The name of the VBR.
Description	String	The description of the VBR.
PhysicalConnectionId	String	The ID of the physical connection that the VBR belongs to.
AccessPointId	String	The ID of the physical connection access point.
Status	String	The status of the physical connection: - Initial: applying - Approved: approved - Allocating: allocating resources - Allocated: access construction. - Confirmed: wait for user confirmation. - Enabled: enabled. - Rejected: rejected. - Canceled: cancelled. - Allocation Failed: resource allocation failed. - Terminated: terminated.
BusinessStatus	String	The payment status of the physical connection: - Normal: normal - FinancialLocked: financially locked - SecurityLocked: locked for security reasons

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
```

```

DCD35712AC89</RequestId>
<DescribeVirtualBorderRoutersResponse>
  <RequestId>AE65530E-8436-4FB1-8217-
  <PageNumber>1</PageNumber>
  <VirtualBorderRouterSet>
    <VirtualBorderRouterType>
      <LocalGatewayIp>10.1.1.1</LocalGatewayIp>
      <PeerGatewayIp>10.2.2.2</PeerGatewayIp>
      <Description></Description>
      <PhysicalConnectionOwnerId>1231579085529123
    </PhysicalConnectionOwnerId>
    <VlanId>10</VlanId>
    <RecoveryTime></RecoveryTime>
    <PhysicalConnectionStatus>Enabled</
PhysicalConnectionStatus>
    <PhysicalConnectionId>pc-2zeoaxkq3j
ot5p71qcnuy</PhysicalConnectionId>
    <RouteTableId>vtb-2ze9hmd6yofwvb1dd79j9</
RouteTableId>
    <PeeringSubnetMask>255.0.0.0</PeeringSub
netMask>
    <TerminationTime></TerminationTime>
    <Name></Name>
    <CreationTime>2018-03-06T11:16:34Z</
CreationTime>
    <ActivationTime>2018-03-06T11:16:34Z</
ActivationTime>
    <CircuitCode></CircuitCode>
    <Status>active</Status>
    <PhysicalConnectionBusinessStatus>Normal</
PhysicalConnectionBusinessStatus>
    <VlanInterfaceId>ri-2zeum6rgu0586gjrocikm</
VlanInterfaceId>
    <AccessPointId>ap-cn-beijing-dx-A</
AccessPointId>
    <VbrId>vbr-2zecmmvg5gvu8i4telkhw</VbrId>
  </VirtualBorderRouterType>
</VirtualBorderRouterSet>
  <TotalCount>1</TotalCount>
  <PageSize>10</PageSize>
</DescribeVirtualBorderRoutersResponse>

```

- JSON format

```

"PageNumber": 1,
"VirtualBorderRouterSet": {
  "VirtualBorderRouterType": [
    "LocalGatewayIp": "10.1.1.1",
    "PeerGatewayIp": "10.2.2.2",
    "Description": "",
    "PhysicalConnectionOwnerId": "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"

```

12.4 DescribeVirtualBorderRoutersForPhysicalConnection

Query the Virtual Border Routers created for a physical connection.

Request parameters

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

Response parameters

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

Table 12-2: VirtualBorderRouterForPhysicalConnection

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

Examples**Request example**

```
https://vpc.aliyuncs.com/?Action=DescribeVirtualBorderRoutersForPhysicalConnection
&RegionId=cn-beijing
&PhysicalConnectionId=pc-2zeoaxkq3joxxxx
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
    <DescribeVirtualBorderRoutersForPhysicalConnectionResponse>
    <RequestId>03E8CB87-5876-4034-BBB2-6E0851281C37</RequestId>
    <PageNumber>1</PageNumber>
    <TotalCount>2</TotalCount>
    <PageSize>10</PageSize>
    <VirtualBorderRouterForPhysicalConnectionSet>
    <VirtualBorderRouterForPhysicalConnectionType>
    <ActivationTime>2018-03-06T11:16:34Z</ActivationTime>
    <CreationTime>2018-03-06T11:16:34Z</CreationTime>
    <CircuitCode></CircuitCode>
    <VlanId>10</VlanId>
    <RecoveryTime></RecoveryTime>
    <VbrOwnerUxxx231579085529123</VbrOwnerId>
    <TerminationTime></TerminationTime>
    <VbrId>Vbrxxxxx-2zecmmvg5gvu8i4telkhw</VbrId>
    </VirtualBorderRouterForPhysicalConnectionType>
```

```
<VirtualBorderRouterForPhysicalConnectionType>
<ActivationTime>2018-01-04T13:34:18Z</ActivationTime>
<CreationTime>2018-01-04T13:34:18Z</CreationTime>
<CircuitCode></CircuitCode>
<VlanId>100</VlanId>
<RecoveryTime></RecoveryTime>
<VxxxbrOwnerId>1231579085529123</VbrOwnerId>
<TerminationTime></TerminationTime>
<VbrId>vbr-2zee2e2cwetx4k0tohakw</VbrId>
</VirtualBorderRouterForPhysicalConnectionType>
</DescribeVirtualBorderRoutersForPhysicalConnectionResponse>
```

- JSON format

```
"PageNumber": 1,
"TotalCount": 2,
"Pagesize": 10,
"RequestId": "03E8CB87-5876-4034-BBB2-6E0851281C37",
"VirtualBorderRouterForPhysicalConnectionSet": {
  "VirtualBorderRouterForPhysicalConnectionType": [

    "ActivationTime": "2018-03-06T11:16:34Z",
    "CreationTime": "2018-03-06T11:16:34Z",
    "CircuitCode": "",
    "VlanId": 10,
    "RecoveryTime": "",
    "VbrOwnerId": "1231579085xxxxxx529123",
    "TerminationTime": "",
    "VbrId": "vbr-2zecmmvvg5gvu8xxxxw"

    "ActivationTime": "2018-01-04T13:34:18Z",
    "CreationTime": "2018-01-04T13:34:18Z",
    "Porteritcode": "",
    "VlanId": 100,
    "RecoveryTime": "",
    "VbrOwnerId": "1231579085xxx",
    "TerminationTime": "",
    "VbrId": "vbr-2zee2e2cwetx4k0txxxxakw"
```

12.5 ModifyVirtualBorderRouterAttribute

Modify the configurations of a VBR.

Request parameters

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

Name	Type	Required	Description
VbrId	String	Yes	The ID of the VBR.
VlanId	String	Yes	The VLAN ID of the VBR. Valid value: [1, 2999].  Note: Only the owner of the physical connection can specify this parameter. The VLAN IDs of two VBRs of the same physical connection must be different.
CircuitCode	String	Yes	The circuit code provided by the network operator for the physical connection.  Note: This parameter can only be specified by the owner of the physical connection.
LocalGatewayIp	String	Yes	The Alibaba Cloud-Side IP address used as the gateway to connect to the local IDC.
PeerGatewayIps	String	Yes	The customer-side IP address used as the gateway to connect to VPC.
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 can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens. The name must start with an English letter, but cannot start with <code>http://</code> or <code>https://</code>.
Description	String	No	The description of the VBR. The description can contain from 2 to 256 characters. The description must start with English letters, but cannot start with <code>http://</code> or <code>https://</code>.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyVirtualBorderRouterAttribute
&VbrId=vbr-2zee2e2cwetx4k0tohakw
&Name=test
&CommonParameters
```

Response example

- XML format

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

- JSON format

```
"RequestId": "980960B0-2969-40BF-8542-EBB34FD358AB"
```

12.6 TerminateVirtualBorderRouter

Terminate the virtual border router (VBR).

After the API is called, the VBR status will be changed from the Enabled status to the Terminated status. Note the following before terminating a VBR.



Note:

Only the owner of the physical connection that the VBR connects to can call the API.

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.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=TerminateVirtualBorderRouter
&VbrId=pc-2zeoaxkq3xxxxx
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
    <TerminateVirtualBorderRouterResponse>
        <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
    </TerminateVirtualBorderRouterResponse>
```

- JSON format

```
"RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
```

12.7 RecoverVirtualBorderRouter

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 . If the VLAN ID is occupied, the recovery operation fails.

Request parameters

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

Name	Type	Required	Description
			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.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=RecoverVirtualBorderRouter
&VbrId=pc-2zeoaxkq3xxxxx
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
    <RecoverVirtualBorderRouterResponse>
        <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
    </RecoverVirtualBorderRouterResponse>
```

- JSON format

```
"RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
```

13 BGP

13.1 CreateBgpGroup

Create a BGP group.

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

A BGP group is used for simplifying BGP configurations. You can combine repetitive configurations into a BGP group to reduce the configuration complexity. Each BGP group is associated with an autonomous system number (ASN).

Note the following before 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	No	The ID of the VBR.
PeerASN	String	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 can contain from 2 to 128 characters including a-z, A-Z, 0-9, dots, underlines, and hyphens. The name must start with an English letter, but cannot start with <code>http://</code> or <code>https://</code> .
Description	String	No	The description of the BGP group.

Name	Type	Required	Description
			The description can contain from 2 to 256 characters. The description must start with English letters, but cannot start with <code>http://</code> or <code>https://</code> .
ClientToken	String	No	The client token that guarantees the power equality of the request. This parameter value is generated by the client and must be unique. It cannot exceed 64 ASCII characters.

Return parameters

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

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<CreateBgpGroupResponse>
  <BgpGroupId>bgpg-2zendnzngq9lkjkhv1rsr</BgpGroupId>
  <RequestId>C1221A1F-2ACD-4592-8F27-474E02883159</RequestId>
</CreateBgpGroupResponse>
```

- JSON format

```
"BgpGroupId": "bgpg-2zendnzngq9lkjkhv1rsr",
```

```
"RequestId": "C1221A1F-2ACD-4592-8F27-474E02883159"
```

13.2 DescribeBgpGroups

Query the created BGP groups.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeBgpGroups
RegionId	String	No	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.
TotalCount	String	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	String	The number of entries on the current page.
BGPGroups	List	A list of BGP groups. For more information, see

Table 13-1: BGPGroup

Name	Type	Description
BgpGroupId	String	The ID of the BGP group.
Name	String	The name of the BGP group.
Status	String	The status of the BGP group.
RouterId	String	The ID of the VBR associated with the BGP group.
RegionId	String	The region of the BGP group.

Name	Type	Description
Description	Integer	The description of the BGP group.
Authkey	String	The authentication key of the BGP group.
PeerAsn	String	The ASN of the BGP peer.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
    <DescribeBgpGroupsResponse>
    <TotalCount>1</TotalCount>
    <PageSize>10</PageSize>
    <RequestId>09E2C0FD-37FF-4737-80DF-517AC36D43DB</RequestId>
    <BgpGroups>
    <BgpGroup>
    <BgpGroupId>bpgg-2zev8h2wo414sfhjgdlhh</BgpGroupId>
    <LocalAsn>45104</LocalAsn>
    <Hold>30</Hold>
    <Description></Description>
    <AuthKey></AuthKey>
    <IsFake>true</IsFake>
    <PeerAsn>234</PeerAsn>
    <Keepalive>10</Keepalive>
    <RouteLimit>99</RouteLimit>
    <Name>Group1</Name>
    <Status>Pending</Status>
    <RouterId>vbr-2zecmmvg5gvu8i4telkhw</RouterId>
    <RegionId>cn-beijing</RegionId>
    </BgpGroup>
    </BgpGroups>
    </DescribeBgpGroupsResponse>
```

- JSON format

```
"TotalCount": 1,
"PageSize": 10,
"RequestId": "09E2C0FD-37FF-4737-80DF-517AC36D43DB",
"BgpGroups": {
  "BgpGroup": [
    {
      "BgpGroupId": "bpgg-2zev8h2wo414sfhjgdlhh",
      "LocalAsn": 45104,
      "Hold": 30,
      "Description": "",
      "AuthKey": "",
```

```
"IsFake": true,  
"PeerAsn": 234,  
"Keepalive": 10,  
"RouteLimit": 99,  
"Name": "Group1",  
"Status": "Pending",  
"RouterId": "vbr-2zecmmvg5gvu8i4telkhw",  
"RegionId": "cn-beijing"
```

13.3 ModifyBgpGroupAttribute

Modify the configurations of a BGP group.

Request parameters

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

Request parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
    <ModifyBgpGroupAttributeResponse>
        <RequestId>C1221A1F-2ACD-4592-8F27-474E02883159</RequestId>
    </ModifyBgpGroupAttributeResponse>
```

- JSON format

```
"RequestId": "C1221A1F-2ACD-4592-8F27-474E02883159"
```

13.4 DeleteBgpGroup

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.

Examples

Request example

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

```
&BgpGroupId=bgpg-2zendnzngq9lkjkhv1rsr
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
    <DeleteBgpGroupResponse>
        <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
    </DeleteBgpGroupResponse>
```

- JSON format

```
"RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
```

13.5 CreateBgpPeer

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.

Response parameters

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

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=CreateBgpPeer
&RegionId=cn-beijing
&PeerIpAddress=11.11.11.11
&BgpGroupId=bgpg-2zendnzngq9lkjkhv1rsr
```

&CommonParameters

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<CreateBgpPeerResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
</CreateBgpPeerResponse>
```

- JSON format

```
"RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
```

13.6 DescribeBgpPeers

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.
TotalCount	String	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	String	The number of entries on the current page.
BgpPeers	List	A list of BGP peers.

Table 13-2: BgpPeer

Name	Type	Description
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	String	The ASN of the BGP peer.
BGPStatus	Integer	The connection status of BGP.
Authkey	String	The key used by the BGP group.
RouterId	String	The status of the BGP peer.

Examples**Request example**

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
    <DescribeBgpGroupsResponse>
        <TotalCount>2</TotalCount>
        <PageSize>10</PageSize>
        <RequestId>16DFA5E6-9771-41B7-B079-DD7C2DF49BE6</RequestId>
        <BgpPeers>
            <BgpPeer>
                <BgpGroupId>bpgg-2zev8h2wo414sfhjgdlhh</BgpGroupId>
                <LocalAsn>45104</LocalAsn>
                <PeerIpAddress>11.11.11.1</PeerIpAddress>
                <Hold>30</Hold>
                <Description></Description>
                <AuthKey></AuthKey>
                <IsFake>true</IsFake>
                <PeerAsn>234</PeerAsn>
                <Keepalive>10</Keepalive>
                <RouteLimit>99</RouteLimit>
                <BgpPeerId>bpg-2ze3un0ft1jd1xdppusul</BgpPeerId>
                <Name> </Name>
                <Status>Available</Status>
                <BgpStatus></BgpStatus>
                <RouterId>vbr-2zecmmvg5gvu8i4telkhw</RouterId>
                <RegionId>cn-beijing</RegionId>
            </BgpPeer>
            <BgpPeer>
```

```

<BgpGroupId>bpgg-2zev8h2wo414sfhjgdlhh</BgpGroupId>
<LocalAsn>45104</LocalAsn>
<PeerIpAddress>11.11.11.2</PeerIpAddress>
<Hold>30</Hold>
<Description></Description>
<AuthKey></AuthKey>
<IsFake>true</IsFake>
<PeerAsn>234</PeerAsn>
<Keepalive>10</Keepalive>
<RouteLimit>99</RouteLimit>
<BgpPeerId>bpg-2zeu54rbreqqzyb5bg1hq</BgpPeerId>
<Name></Name>
<Status>Available</Status>
<BgpStatus></BgpStatus>
<RouterId>vbr-2zecmmvg5gvu8i4telkhw</RouterId>
<RegionId>cn-beijing</RegionId>
</BgpPeer>
</BgpPeers>
</DescribeBgpGroupsResponse>

```

- JSON format

```

{
  "TotalCount": 2,
  "PageSize": 10,
  "RequestId": "16DFA5E6-9771-41B7-B079-DD7C2DF49BE6",
  "BgpPeers": {
    "BgpPeer": [
      {
        "BgpGroupId": "bpgg-2zev8h2wo414sfhjgdlhh",
        "LocalAsn": 45104,
        "PeerIpAddress": "11.11.11.1",
        "Hold": 30,
        "Description": "",
        "AuthKey": "",
        "IsFake": true,
        "PeerAsn": 234,
        "Keepalive": 10,
        "RouteLimit": 99,
        "BgpPeerId": "bpg-2ze3un0ft1jd1xdppusul",
        "Name": "",
        "Status": "Available",
        "BgpStatus": "",
        "RouterId": "vbr-2zecmmvg5gvu8i4telkhw",
        "RegionId": "cn-beijing"
      },
      {
        "BgpGroupId": "bpgg-2zev8h2wo414sfhjgdlhh",
        "LocalAsn": 45104,
        "PeerIpAddress": "11.11.11.2",
        "Hold": 30,
        "Description": "",
        "AuthKey": "",
        "IsFake": true,
        "PeerAsn": 234,
        "Keepalive": 10,
        "RouteLimit": 99,
        "BgpPeerId": "bpg-2zeu54rbreqqzyb5bg1hq",
        "Name": "",
        "Status": "Available",
        "BgpStatus": "",
        "RouterId": "vbr-2zecmmvg5gvu8i4telkhw",

```

```
"RegionId": "cn-beijing"
```

13.7 DeleteBgpPeer

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.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DeleteBgpPeer
&RegionId=cn-beijing
&BgpGroupId=bgpg-2zendnzngq9lkjkhvlsr
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
    <DeleteBgpPeerResponse>
        <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
    </DeleteBgpPeerRe>
```

- JSON format

```
"RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
```

13.8 AddBgpNetwork

Advertise a BGP network

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: AddBgpNetwork
RegionId	String	Yes	The region of the VBR group. 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 data center.
RouterId	String	Yes	The ID of the VBR.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=AddBgpNetwork
&RegionId=cn-beijing
&RouterId=vbr-2zeff11o2sqhnp1u7ci93
&DstCidrBlock=10.0.0.0/24
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
    <AddBgpNetworkResponse>
        <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
    </AddBgpNetworkResponse>
```

- JSON format

```
"RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
```

13.9 DescribeBgpNetworks

Query the advertised BGP networks.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeBgpNetworks
RegionId	String	Yes	The region of the BGP network. You can obtain the region ID by calling the DescribeRegions API.
dstCidrBlock	String	No	The advertised BGP network.
routeId	String	No	The ID of the VBR.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
    <DescribeBgpNetworksResponse>
        <BgpNetworks>
            <BgpNetwork>
                <DstCidrBlock>10.1.1.0/24</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
```

14 NAT Gateway

14.1 CreateNatGateway

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.
- 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.
- 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. Otherwise, the NAT gateway cannot be created.

Specification

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 relationship between NAT gateway specification and SNAT performance is as follows:

Specification	Max Connection	CPS
Small	10 thousand	1 thousand
Medium	50,000	5,000
Large	200,000	10,000
Super large	1,000,000	30,000

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.
Spec	String	No	The specification of the NAT Gateway. Valid value:

Name	Type	Required	Description
			• Small (default): small • Middle: medium • Large: large • Xlarge. 1: super large
BandwidthPackage.n.Bandwidth	String	No	The bandwidth of the n-th NAT bandwidth package. Valid value: [5,5000]  Note: This API can only be called if your account purchased a NAT bandwidth package before January 26, 2018. If your account does not include a NAT bandwidth package before January 26, 2018, bind an EIP.
BandwidthPackage.n.Zone	String	No	The zone of the n-th NAT bandwidth package. The system randomly allocates a zone if the parameter is not specified. If the NAT bandwidth package and the backend ECS instance are not in the same zone, the connectivity is not influenced; if they are in the same zone, the latency can be reduced.  Note: This API can only be called if your account purchased a NAT bandwidth package before January 26, 2018. If your account does not include a NAT bandwidth package before January 26, 2018, bind an EIP.
Name	String	No	The name of the NAT Gateway. The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens. The name must start with an English letter, but cannot start with <code>http://</code> or <code>https://</code>.
Description	String	No	The description of the NAT Gateway. The description can contain from 2 to 256 characters. The description must start with English letters, but cannot start with <code>http://</code> or <code>https://</code>.
ClientToken	String	No	A client token used to guarantee the idempotence of requests.

Name	Type	Required	Description
			This parameter value is generated by the client and must be unique. It cannot exceed 64 ASCII characters.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
NatGatewayId	String	The ID of the NAT Gateway.
ForwardTableIds	String	The list of forwarding entries.
BandwidthPackageIds	String	The NAT bandwidth package of the NAT gateway.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=CreateNatGateway
&VpcId=vpc-11af8lp67
&Name=MyNatGW
&BandwidthPackage.1.IpCount=5
&RegionId=cn-shanghai
&BandwidthPackage.1.Bandwidth=150
&BandwidthPackage.1.Zone=cn-shanghai-a
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
  <CreateNatGatewayResponse>
    <BandwidthPackageIds>
      <BandwidthPackageId>bwp-11odxu2k7</
BandwidthPackageId>
    </BandwidthPackageIds>
    <ForwardTableIds>
      <ForwardTableId>ftb-11tc6xgmv</ForwardTab
leId>
    </ForwardTableIds>
    <NatGatewayId>ngw-112za33e4</NatGatewayId>
    <RequestId>2315DEB7-5E92-423A-91F7-
4C1EC9AD97C3</RequestId>
  </CreateNatGatewayResponse>
```

- JSON format

```
"BandwidthPackageIds": {
```

```
"BandwidthPackageId": [
  "bwp-11odxu2k7"

"ForwardTableIds": {
  "ForwardTableId": [
    "ftb-11tc6xgmv"

"NatGatewayId": "ngw-112za33e4",
"RequestId": "2315DEB7-5E92-423A-91F7-4C1EC9AD97C3"
```

14.2 DescribeNatGateways

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
RequestId	String	The ID of the request.
TotalCount	String	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	String	The number of entries on the current page.
NatGateways	List	A list of queried NAT Gateways.

Table 14-1: NatGateway

Name	Type	Description
NatGatewayId	String	The region of the NAT gateway.
RegionId	String	The ID of the NAT gateway.
Description	Integer	The description of the NAT gateway.
Spec	String	The specification of the NAT gateway.
Status	String	The status of the NAT gateway, valid value: • Initiating: Initiating • Available: Available • Pending: Configuring
ForwardTableIds	List	The list of DNAT entries.
BandwidthPackageIds	List	The list of NAT bandwidth packages.
SnatTableIds	List	The list of SNAT entries.
InstanceChargeType	String	The payment method of NAT gateway.
BusinessStatus	String	The payment status of the NAT gateway, valid value: • Normal: normal • FinancialLocked: financially locked • SecurityLocked: locked for security reasons
CreationTime	String	The time when the NAT gateway is created.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
    <DescribeNatGatewaysResponse>
        <PageNumber>1</PageNumber>
```

```

<TotalCount>1</TotalCount>
<PageSize>10</PageSize>
<RequestId>1207C80C-7CAB-4874-A9A0-D19EC9F35490</RequestId>
<NatGateways>
  <NatGateway>
    <Description></Description>
    <Spec>Small</Spec>
    <IpLists>
      <IpList>
        <IpAddress>118.31.65.181</IpAddress>
        <AllocationId>eip-bp1xyg5ipmh3nledxywxf</AllocationId>
        <UsingStatus>UsedBySnatTable</UsingStatus>
      </IpList>
      <IpList>
        <IpAddress>47.97.187.34</IpAddress>
        <AllocationId>eip-bp19eue77u20cffjcu4ea</AllocationId>
        <UsingStatus>UsedByForwardTable</UsingStatus>
      </IpList>
    </IpLists>
    <ForwardTableIds>
      <ForwardTableId>ftb-bp15o9aylj19vfvgtznzoy</ForwardTableId>
    </ForwardTableIds>
    <VpcId>vpc-bp15k6sx6fhdz2jw4daz0</VpcId>
    <NatGatewayId>ngw-bp1047e2d4z7kf2kiy25t</NatGatewayId>
    <CreationTime>2018-01-10T09:48:29Z</CreationTime>
    <BandwidthPackageIds></BandwidthPackageIds>
    <Name></Name>
    <Status>Available</Status>
    <BusinessStatus>Normal</BusinessStatus>
    <RegionId>cn-hangzhou</RegionId>
    <SnatTableIds>
      <SnatTableId>stb-bp1tyr0o48w6wymur4gvn</SnatTableId>
    </SnatTableIds>
    <InstanceChargeType>PostPaid</InstanceChargeType>
  </NatGateway>
</NatGateways>
</DescribeNatGatewaysResponse>

```

- JSON format

```

{
  "PageNumber": 1,
  "TotalCount": 1,
  "PageSize": 10,
  "RequestId": "1207C80C-7CAB-4874-A9A0-D19EC9F35490",
  "NatGateways": {
    "NatGateway": [
      {
        "Description": "",
        "Spec": "Small",
        "IpLists": {
          "IpList": [
            {
              "IpAddress": "118.31.65.181",
              "AllocationId": "eip-bp1xyg5ipmh3nledxywxf",
              "UsingStatus": "UsedBySnatTable"
            },
            {
              "IpAddress": "47.97.187.34",
              "AllocationId": "eip-bp19eue77u20cffjcu4ea",
              "UsingStatus": "UsedByForwardTable"
            }
          ]
        }
      }
    ]
  }
}

```

```

        "UsingStatus": "UsedByForwardTable"

        "ForwardTableIds": {
            "ForwardTableId": [
                "ftb-bp15o9aylj19vfvgtznzoy"

            ]

        }

        "VpcId": "vpc-bp15k6sx6fhdz2jw4daz0",
        "NatGatewayId": "ngw-bp1047e2d4z7kf2kiy25t",
        "CreationTime": "2018-01-10T09:48:29Z",
        "BandwidthPackageIds": {
            "BandwidthPackageId": [ ]

        }

        "Name": "",
        "Status": "Available",
        "BusinessStatus": "Normal",
        "RegionId": "cn-hangzhou",
        "SnatTableIds": {
            "SnatTableId": [
                "stb-bp1tyr0o48w6wymur4gvn"

            ]

        }

        "InstanceChargeType": "PostPaid"
    
```

14.3 ModifyNatGatewaySpec

Modify the specification of a NAT gateway.

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

NAT Gateway has different specifications. NAT Gateway specification influences performance metrics (maximum connections and the number of new connections per second), but does not influence data throughput.

The relationship between NAT Gateway specification and SNAT function is as follows:

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

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 ID 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(default): small - Middle: medium - Large: 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.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyNatGatewaySpec
&NatGatewayId=ngw-112za33e4
&&Spec=Large
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
    <ModifyNatGatewaySpecResponse>
        <RequestId>2315DEB7-5E92-423A-91F7-4C1EC9AD97C3</RequestId>
```

```
</ModifyNatGatewaySpecResponse>
```

- JSON format

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

14.4 ModifyNatGatewayAttribute

Modify the name and description of a NAT gateway.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: <code>ModifyNatGatewayAttribute</code>
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 can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens. The name must start with an English letter, but cannot start with <code>http://</code> or <code>https://</code> .
Description	String	No	The description of the NAT gateway. The description can contain from 2 to 256 characters. The description must start with English letters, but cannot start with <code>http://</code> or <code>https://</code> .

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

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

&CommonParameters

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
<ModifyNatGatewayAttributeResponse>
  <RequestId>2315DEB7-5E92-423A-91F7-4C1EC9AD97C3</RequestId>
</ModifyNatGatewayAttributeResponse>
```

- JSON format

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

14.5 DeleteNatGateway

Delete a NAT gateway.

Request parameters

Delete 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	String	Yes	The ID of the NAT gateway.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<DeleteNatGatewayResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
</DeleteNatGatewayResponse>
```

- JSON format

```
"RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
```

14.6 CreateForwardEntry

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:

- 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.
- ExternalIp must meet the following requirements:
 - 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.
 - A public IP cannot be used in both SNAT and DNAT entries at the same time.
- InternalIp must meet the following requirements:
 - InternalIp must belong to the CIDR block of the VPC to which the NAT gateway belongs.
 - The DNAT entry takes effect only when the InternalIP is used by an ECS instance 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.
 - A public IP cannot be used in both SNAT and DNAT entries at the same time.

- A maximum of 100 DNAT entries can be added to a DNAT table.

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.
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 target private IP address.
InternalPort	String	No	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.

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

- XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
<CreateForwardEntryResponse>
  <ForwardEntryId>fwd-119smw5tk</ForwardEntryId>
  <RequestId>2315DEB7-5E92-423A-91F7-4C1EC9AD97C3</RequestId>
</CreateForwardEntryResponse>
```

- JSON format

```
"ForwardEntryId": "fwd-119smw5tk",
"RequestId": "2315DEB7-5E92-423A-91F7-4C1EC9AD97C3"
```

14.7 AssociateEipAddress

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



Note:

- You can bind an EIP to an ECS instance of the VPC network, an SLB instance of the VPC network, or a NAT gateway. This document introduces how to use this API to bind an EIP to a NAT gateway. For more information, see [AssociateEipAddress](#).
- This API can only be called if your account did not include a NAT bandwidth package before January 26, 2018. If your account included a NAT bandwidth package before January 26, 2018, submit a ticket.

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: Nat
InstanceId	String	Yes	The ID of the NAT gateway instance.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=AssociateEipAddress
&AllocationId=eip-25877c70x
&InstanceId=ngw-bp1tcx67xuox8ogre7onm
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
    <AssociateEipAddressResponse>
        <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
    </AssociateEipAddressResponse>
```

- JSON format

```
"RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
```

14.8 DescribeForwardTableEntries

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.

Name	Type	Description
TotalCount	String	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	String	The number of entries on the current page.
ForwardTableEntries	List	The list of queried DNAT entries.

Table 14-2: ForwardTableEntry

Name	Type	Description
ForwardTableId	String	The ID of the DNAT table that the DNAT entries belong to.
ForwardEntryId	String	The ID of the DNAT entry.
ExternalIp	Integer	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

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

- XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
    <DescribeForwardTableEntriesResponse>
    <PageNumber>1</PageNumber>
    <TotalCount>1</TotalCount>
    <PageSize>10</PageSize>
    <RequestId>74F2BAD8-AF35-4C57-81F1-5E33BFB0F5F2</RequestId>
    <ForwardTableEntries>
    <ForwardTableEntry>
    <Status>Available</Status>
    <IpProtocol>any</IpProtocol>
    <ForwardEntryId>fwd-bp18jpb1t1lm550di3q5pb</ForwardEntryId>
    <ExternalIp>47.97.xx.xx</ExternalIp>
    <ForwardTableId>ftb-bp15o9aylj19vfvgtznzoy</ForwardTableId>
    <ExternalPort>any</ExternalPort>
    <InternalPort>any</InternalPort>
    <InternalIp>192.168.xx.xx</InternalIp>
    </ForwardTableEntry>
    </ForwardTableEntries>
    </DescribeForwardTableEntriesResponse>
```

- JSON format

```
"PageNumber": 1,
"TotalCount": 1,
"PageSize": 10,
"RequestId": "74F2BAD8-AF35-4C57-81F1-5E33BFB0F5F2",
"ForwardTableEntries": {
  "ForwardTableEntry": [
    {
      "Status": "Available",
      "IpProtocol": "any",
      "ForwardEntryId": "fwd-bp18jpb1t1lm550di3q5pb",
      "ExternalIp": "47.97.xx.xx",
      "ForwardTableId": "ftb-bp15o9aylj19vfvgtznzoy",
      "ExternalPort": "any",
      "InternalPort": "any",
      "InternalIp": "192.168.xx.xx"
    }
  ]
}
```

14.9 ModifyForwardEntry

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	No	The public IP address.
IpProtocol	String	No	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	No	The target private IP.
InternalPort	String	No	The target private port. Valid value: [1, 65535]

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyForwardEntry
&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

- XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
    <ModifyForwardEntryResponse>
    <ForwardEntryId>fwd-119smw5tk</ForwardEntryId>
    <RequestId>2315DEB7-5E92-423A-91F7-4C1EC9AD97C3</RequestId>
    </ModifyForwardEntryResponse>
```

- JSON format

```
"ForwardEntryId": "fwd-119smw5tk",
"RequestId": "2315DEB7-5E92-423A-91F7-4C1EC9AD97C3"
```

14.10 DeleteForwardEntry

Delete a DNAT entry.



Note:

You cannot delete a DNAT entry if there is any DNAT entry 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.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DeleteForwardEntry
&RegionId=cn-shanghai
&ForwardEntryId=fwd-11iv34uj7
```

```
&ForwardTableId=ftb-11tc6xgmv  
&CommonParameters
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >  
    <DeleteForwardEntryResponse>  
        <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>  
    </DeleteForwardEntryResponse>
```

- JSON format

```
"RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
```

14.11 CreateSnatEntry

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 must belong to the same VPC as the NAT gateway.
- Each VSwitch can belong to only one SNAT entry.
- The SNAT entry cannot be added if there is any HaVip instance under the VSwitch.
- 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.
 - 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.
 - A public IP cannot be used by a DNAT entry and an SNAT entry at the same time.

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.

Name	Type	Required	Description
SnatTableId	String	Yes	The ID of the SNAT table.
SourceVSwitchId	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.
SourceCIDR	String	No	The protocol type. Valid value: - TCP: forward TCP packets. - UDP: forward UDP packets. - Any: forward all packets.
SnatIp	String	No	The public IP address. Separate multiple EIPs by commas.

Response parameters

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

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

- XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
    <CreateSnatEntryResponse>
        <RequestId>2315DEB7-5E92-423A-91F7-4C1EC9AD97C3</RequestId>
        <SnatEntryId>snat-119smw5tk</ForwardEntryId>
    </CreateSnatEntryResponse>
```

- JSON format

```
"SnatEntryId": "snat-119smw5tk",  
"RequestId": "2315DEB7-5E92-423A-91F7-4C1EC9AD97C3"
```

14.12 DescribeSnatTableEntries

Query SNAT entries in a SNAT table.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: <code>DescribeForwardTableEntries</code>
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.
TotalCount	String	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	String	The number of entries on the current page.
SnatTableEntries	List	A list of SNAT entries.

Table 14-3: SnatTableEntry

Name	Type	Description
SnatTableId	String	The ID of the SNAT table to which the SNAT entries belong.
SnatEntryId	String	The ID of the SNAT entry.
SourceVSwitchId	String	The ID of the VSwitch that access the Internet through the SNAT function.
SourceCIDR	String	The source CIDR block of the SNAT entry.

Name	Type	Description
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

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
    <DescribeSnatTableEntriesResponse>
        <PageNumber>1</PageNumber>
        <PageSize>10</PageSize>
        <RequestId>6D7E89B1-1C5B-412B-8585-
4908E222EED5</RequestId>
        <SnatTableEntries>
            <SnatTableEntry>
                <SnatEntryId>snat-kmd6nv8fy</SnatEntryId>
                <SnatIp>139.xxx.xx. 40</SnatIp>
                <SnatTableId>stb-gz3r3odaw</SnatTableId>
                <SourceCIDR>192.168.1.0/24</SourceCIDR>
                <SourceVSwitchId>vsw-yrv0xxxxx</SourceVSwi
tchId>
                <Status>Available</Status>
            </SnatTableEntry>
            <SnatTableEntry>
                <SnatEntryId>snat-bs5bezbme</SnatEntryId>
                <SnatIp>139.xxx.xx. 40</SnatIp>
                <SnatTableId>stb-gz3r3odaw</SnatTableId>
                <SourceCIDR>192.168.3.0/24</SourceCIDR>
                <SourceVSwitchId>vsw-3xbxxxxx</SourceVSwi
tchId>
                <Status>Available</Status>
            </SnatTableEntry>
        </SnatTableEntries>
    </DescribeSnatTableEntriesResponse>
```

- 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",
    "Script Dr": "192.168.3.0/24 ",
    "SourceVSwitchId": "vsw-3xbxxxxx",
    "Status": "Available"
  ]
}

```

14.13 ModifySnatEntry

Modifies a specified SNAT entry.



Note:

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

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.
SnatEntryId	String	Yes	The ID of the SNAT entry.
SnatIp	String	No	The public IP address. Separate multiple IPs by comma.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

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

- XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
    <ModifySnatEntryResponse>
    <RequestId>2315DEB7-5E92-423A-91F7-4C1EC9AD97C3</RequestId>
    </ModifySnatEntryResponse>
```

- JSON format

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

14.14 DeleteSnatEntry

Delete an SNAT entry.



Note:

You cannot delete an SNAT entry if there is any SNAT entry in the Pending or Modifying status in the SNAT table.

Request parameters

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

Delete Name	Type	Required	Description
			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.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
    <DeleteSnatEntryResponse>
        <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
    </DeleteSnatEntryResponse>
```

- JSON format

```
"RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
```

15 VPN Gateway

15.1 CreateVpnGateway

Create a VPN Gateway.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: CreateVpnGateway
RegionId	String	Yes	The region of the VPN Gateway. You can obtain the region ID by calling the DescribeRegions API.
VpcId	String	Yes	The ID of the VPC to which the VPN Gateway belongs.
InstanceChargeType	String	No	The billing type of the VPN Gateway. Valid value: - PrePay: Monthly subscription. - Postpay: Pay-As-You-Go based on the traffic.
Period	Integer	No	Purchase period. Valid value: 1-9 12 24 36
Autopay	Boolean	No	Whether to pay the bill automatically. Valid values: true false (default)
Bandwidth	Integer	Yes	The bandwidth in Mbps of the VPN Gateway. Valid values: 5 10 20 50 100
EnableIpsec	Boolean	No	Whether to enable the IPsec-VPN feature. The IPsec-VPN feature provides site-to-site connection. You can create an IPsec tunnel to connect a local data center to a VPC or connect two VPCs. Valid value: true (default) false
EnableSsl	Boolean	No	Select whether to enable the SSL-VPN feature. Point-to-site VPN connection is provided and customer gateway configuration is not needed. Valid values: true false (default)
SslConnections	Integer	No	The maximum number of clients allowed to connect simultaneously.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
VpnGatewayId	String	The ID of the VPN Gateway.
Name	String	The name of the VPN Gateway.
OrderId	String	The ID of the order. Go to the console to complete the payment.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DescribeNatGateways
&RegionId=cn-beijing
&&VpcId=vpc-bp1ub1yt9cvakoelj1y9c
&Bandwidth=5
&CommonParameters
```

Response example

- XML format

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

- JSON format

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

15.2 DescribeVpnGateways

Query the created 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.

Name	Type	Required	Description
			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 payment status of the NAT 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 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.
VpnGateways	List	A list of VPN gateways.

Table 15-1: VpnGateway

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 time when the VPN gateway was created.
EndTime	Long	The time when the VPN gateway expires.

Name	Type	Description
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.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<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"
}

```

15.3 DescribeVpnGateway

Query the detailed information of a VPN gateway.

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.
VpnGatewayId	String	Yes	The ID of the VPC to which the VPN gateway belongs.

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 time when the VPN gateway was created.
EndTime	Long	The time when the VPN gateway expires.
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.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<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"
}
```

15.4 ModifyVpnGatewayAttribute

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.

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

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
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 time when the VPN gateway was created.
EndTime	Long	The time when the VPN gateway expires.
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.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
<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"
}
```

15.5 DeleteVpnGateway

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.
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.
VpnGatewayId	String	Yes	The ID of the VPN gateway.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<DeleteNatGatewayResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
</DeleteNatGatewayResponse>
```

- JSON format

```
{
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
```

```
}
```

15.6 CreateCustomerGateway

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

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
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 time when the customer gateway was created.

Examples

Request example

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

```
&RegionID=cn-beijing
&IpAddress=100.1.1.2
&<CommonParameters>
```

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
<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"
}
```

15.7 DescribeCustomerGateways

Query the created 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.

Name	Type	Description
CustomerGateways	List	A list of 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.
CustomerGateways	List	A list of customer gateways.

Table 15-2: CustomerGateway

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 time when the customer gateway was created.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<DescribeCustomerGatewaysResponse>
  <PageNumber>1</PageNumber>
  <TotalCount>3</TotalCount>
  <PageSize>10</PageSize>
  <RequestId>5BE01CD7-5A50-472D-AC14-CA181C5C03BE</RequestId>
  <CustomerGateways>
    <CustomerGateway>
      <Name>test</Name>
      <CustomerGatewayId>cgw-bp1pvp19r9adju6l5nxck</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"
      }
    ]
  }
}
```

15.8 DescribeCustomerGateway

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 time when the customer gateway was created.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<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"
}
```

15.9 DeleteCustomerGateway

Delete a customer gateway.

Request parameters

Delete 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	String	Yes	The ID of the customer gateway.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DeleteCustomerGateway
&RegionId=cn-hangzhou
&CustomerGatewayId=cgw-bp1pvp19r9adju6l5nxck
&CommonParameters
```

Response example

- XML format

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

- JSON format

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

15.10 ModifyCustomerGatewayAttribute

Modify the name and description of a customer gateway.

Request parameters

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

Name	Type	Required	Description
Description	String	No	The description of the customer gateway. The description can contain from 2 to 256 characters. The description must start with English letters, but cannot start with <code>http://</code> or <code>https://</code> .

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
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 time when the customer gateway was created.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
<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"
```

}

15.11 CreateVpnConnection

Create an IPsec connection.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: <code>CreateVpnConnection</code>
RegionId	String	Yes	The region of the IPsec connection. You can obtain the region ID by calling the DescribeRegions API.
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.
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 can contain from 2 to 128 characters including a-z, A-Z, 0-9, underlines, and hyphens. The name must start with an English letter, but cannot start with <code>http://</code> or <code>https://</code> .
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, 92.168.3.0/24, 192.168.4.0/24.
EffectImmediately	Boolean	No	Whether to delete a successfully negotiated IPsec tunnel and initiate a negotiation again. Valid value: <code>true</code>: Negotiate immediately after the configuration is completed.

Name	Type	Required	Description
			false (default): Negotiate when there is incoming traffic.
IkeConfig	JSON String	No	The configurations of phase-one negotiation: <code>IkeConfig.Psk</code>: Used for authentication between the IPsec VPN gateway and the customer gateway. This parameter is generated randomly by default and can contain up to 100 characters. You can also manually specify the key. <code>IkeConfig.IkeVersion</code>: The version of the IKE protocol. Valid value: <code>ikev1</code> <code>ikev2</code>. Default value: <code>ikev1</code>. <code>IkeConfig.IkeMode</code>: The negotiation mode of IKE V1. Valid value: <code>main</code> (main mode) <code>aggressive</code> (aggressive mode). Default value: <code>main</code>. <code>Ikeconfig.IkeEncAlg</code>: The encryption algorithm of phase-one negotiation. Valid value: <code>aes</code> <code>aes192</code> <code>aes256</code> <code>des</code> <code>3des</code>. Default value: <code>aes</code>. <code>IkeConfig.IkeAuthAlg</code>: The authentication algorithm of phase-one negotiation. Valid value: <code>md5</code> <code>sha1</code>. Default value: <code>sha</code>. <code>IkeConfig.IkePfs</code>: The Diffie-Hellman key exchange algorithm used by phase-one negotiation. Valid value: <code>group1</code> <code>group2</code> <code>group5</code> <code>group14</code> <code>group24</code>. Default value: <code>group2</code>. <code>IkeConfig.IkeLifetime</code>: The SA lifecycle as the result of phase-one negotiation. The valid value of <code>n</code> is <code>[0, 86400]</code>, the unit is second and the default value is 86400.

Name	Type	Required	Description
			<code>IkeConfig.LocalIdIPsec</code>: 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. <code>IkeConfig.RemoteId</code>: 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.
IpssecConfig	JSON String	No	The configurations of phase-two negotiation: <code>IpssecConfig.IpssecEncAlg</code>: The encryption algorithm of phase-two negotiation. Valid value: aes aes192 aes256 des 3des. Default value: aes. <code>IpssecConfig.IpssecAuthAlg</code>: The authentication algorithm of phase-two negotiation. Valid value: md5 sha1. Default value: sha1. <code>IpssecConfig.IpssecPfs</code>: Forward packets of all protocols. The Diffie-Hellman key exchange algorithm used by phase-one negotiation. Valid value: group1 group2 group5 group14 group24. Default value: group2. <code>IpssecConfig.IpssecLifetime</code>: The SA lifecycle as the result of phase-two negotiation. The valid value is [0, 86400], the unit is second and the default value is 86400.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
VpnConnectionId	String	The ID of the IPsec connection.
CreateTime	Long	The time when the IPsec connection was created.

Name	Type	Description
Name	String	The name of the IPsec connection.

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

```
<? xml version="1.0" encoding="UTF-8" ? >
<CreateVpnConnectionResponse>
  <VpnConnectionId>vco-bp1bbi27hojx80nck9k1i</VpnConnectionId>
  <CreateTime>1493363928000</CreateTime>
</CreateVpnConnectionResponse>
```

- JSON format

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

15.12 DescribeVpnConnections

Query created 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.

Name	Type	Required	Description
PageNumber	Integer	No	The number of pages to return. The default value is 1.
PageSize	Integer	No	The number of rows per page. The maximum value is 50 and the default value is 10.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
TotalCount	String	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	String	The number of entries on the current page.
VpnConnections	List	A list of IPsec connections.

Table 15-3: VpnConnection

Name	Type	Description
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 time when the IPsec connection was created.
IkeConfig	JSON string	Configurations of phase-one negotiation.
IpssecConfig	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.

Name	Type	Description
		ipsec_sa_established: The phase-two negotiation succeeds.

Examples

Request example

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

Response example

- XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
<DescribeVpnConnectionsResponse>
  <PageNumber>1</PageNumber>
  <VpnConnections>
    <VpnConnection>
      <Name>vpn connection test</Name>
      <CustomerGatewayId>cgw-bp1pvpl9r9adju6l5nxck</CustomerGa
tewayId>
      <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-bp10lz7aejumd2vx0qgev</VpnConnect
ionId>
      <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-bp10lz7aejumd2vxoggev",
        "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"
}
```

15.13 DeleteVpnConnection

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

Name	Type	Required	Description
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.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DeleteVpnConnection
&RegionId=cn-hangzhou
&VpnConnectionId=vco-bp10lz7aejumd2vxoggev
&CommonParameters
```

Response example

- XML format

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

- JSON format

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

16 Global Acceleration

16.1 DescribeGlobalAccelerationInstances

Query a list of created Global Acceleration instances.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeGlobalAccelerationInstances
RegionId	String	Yes	The ID of the region where the Global Acceleration instance is located. Call the DescribeRegions API to obtain the region ID.
BandwidthType	String	No	The type of the Global Acceleration instance. Valid values: - Sharing: Query shared-bandwidth instances. - Exclusive (Default): Query dedicated-bandwidth instances.
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 values: - Available: Available - Inuse: Allocated - Associating: The EIP is being bound. - Unassociating: The EIP is being unbound.
ServiceLocation	String	Yes	The service area of the Global Acceleration instance. Valid values: - china-mainland: Mainland China - north-america: North America - asia-pacific: Asia Pacific

Name	Type	Required	Description
			• 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
RequestId	String	The ID of the request.
TotalCount	String	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	String	The number of rows per page.
GlobalAccelerationInstances	List	A list of Global Acceleration instances.

Table 16-1: GlobalAccelerationInstanceItemType

Name	Type	Description
RegionId	String	The region of the Global Acceleration instance.
GlobalAccelerationInstanceId	String	The ID of the Global Acceleration instance.
IpAddress	Integer	The public IP of the dedicated-bandwidth 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 payment method of the Global Acceleration instance. Valid values: • Postpaid: Pay-As-You-Go
InternetChargeType	String	The billing method of the instance.
ServiceLocation	String	The service area of the instance.

Name	Type	Description
AccelerationLocation	String	The accelerated area of the instance.
Name	String	The name of the instance.
Description	String	The description of the instance.
CreationTime	String	The time in UTC at which the instance was created.
OperationLocks	String	The reason why the instance is locked: - financial: The instance bill is overdue. - security: Security reasons.
BackendServers	List	A list of backend servers bound to the Global Acceleration instance.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DescribeGlobalAccelerationInstances
&RegionId=ap-southeast-1
&CommonRequestParameters
```

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
}

```

XML format

```

<? xml version="1.0" encoding="UTF-8" ? >
<DescribeGlobalAccelerationInstancesResponse>
  <GlobalAccelerationInstances>
    <GlobalAccelerationInstance>
      <AccelerationLocation>china-mainland</AccelerationLocation>
      <BackendServers>
        <BackendServer>
          <RegionId>cn-beijing</RegionId>
          <ServerId>lb-2222223333333333</ServerId>
          <ServerIpAddress>192.168.0.180</ServerIpAddress>
          <ServerType>SlbInstance</ServerType>
        </BackendServer>
      </BackendServers>
      <Bandwidth>10</Bandwidth>
      <ChargeType>PrePaid</ChargeType>
      <CreationTime>2017-07-26T03:34:30Z</CreationTime>
      <Description></Description>
      <ExpiredTime>2017-08-26T16:00Z</ExpiredTime>
      <GlobalAccelerationInstanceId>ga-aabbccddaabb</GlobalAccelerationIn
stanceId>
      <InternetChargeType>PayByBandwidth</InternetChargeType>
      <IpAddress>12.34.56.78</IpAddress>
      <Name></Name>
      <OperationLocks></OperationLocks>
      <RegionId>cn-shanghai</RegionId>
      <ServiceLocation>asia-pacific</ServiceLocation>
      <Status>InUse</Status>
    </GlobalAccelerationInstance>
  </GlobalAccelerationInstances>
  <PageNumber>1</PageNumber>
  <PageSize>10</PageSize>
  <RequestId>0487FCA3-E152-4726-8A17-25F69E03ADB0</RequestId>
  <TotalCount>1</TotalCount>

```

```
</DescribeGlobalAccelerationInstancesResponse>
```

16.2 ModifyGlobalAccelerationInstanceAttributes

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

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Example

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-40C2-9AC3-89XXXXXXXXXX"
}
```

XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
<ModifyGlobalAccelerationInstanceAttributesResponse>
  <RequestId>185E81B1-3916-4667-B48F-C52409B33F2B</RequestId>
</ModifyGlobalAccelerationInstanceAttributesResponse>
```

16.3 ModifyGlobalAccelerationInstanceSpec

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.

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-40C2-9AC3-89XXXXXXXXXX"
}
```

XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
<ModifyGlobalAccelerationInstanceSpecResponse>
  <RequestId>BD5BCEE8-F62C-40C2-9AC3-89XXXXXXXXXX</RequestId>
</ModifyGlobalAccelerationInstanceSpecResponse>
```

16.4 DeleteGlobalAccelerationInstance

Delete a Global Acceleration instance.

Note the following before calling this API:

- Only Pay-As-You-Go instances are supported.
- If you want to delete a dedicated-bandwidth instance, unbind the backend server before deleting the instance.
- If you want to delete a shared-bandwidth instance, remove the EIPs before deleting the instance.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DeleteGlobalAccelerationInstance
RegionId	String	Yes	The ID of the region where the Global Acceleration instance is located. Call the DescribeRegions API to obtain the region ID.
GlobalAccelerationInstanceId	String	Yes	The ID of the Global Acceleration instance.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DeleteGlobalAccelerationInstance
&RegionId=ap-southeast-1
&GlobalAccelerationInstanceId=ga-aabbccddaabb
&CommonRequestParameters
```

Response example

JSON format

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

XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
<DeleteGlobalAccelerationInstanceResponse>
  <RequestId>BD5BCEE8-F62C-40C2-9AC3-89XXXXXXXXXX</RequestId>
</DeleteGlobalAccelerationInstanceResponse>
```

16.5 AssociateGlobalAccelerationInstance

Bind a backend server to a dedicated-bandwidth Global Acceleration instance.

Note the following before calling the API:

- Only an ECS instance or SLB instance of the VPC network can be bound to a dedicated-bandwidth instance.
- Only one backend server can be bound to a dedicated-bandwidth instance.
- A backend server can be bound to multiple dedicated-bandwidth instances.
- The backend server and the dedicated-bandwidth instance must belong to the same account.
- The region of the backend server to bind must be in the server area of the dedicated-bandwidth instance.
- Only dedicated-bandwidth instances support using this API to bind a backend server.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: AssociateGlobalAccelerationInstance
RegionId	String	Yes	The ID of the region where the dedicated-bandwidth instance is located. Call the DescribeRegions API to obtain the region ID.
GlobalAccelerationInstanceId	String	Yes	The ID of the dedicated-bandwidth instance.
BackendServerRegionId	String	Yes	The region of the backend server, which must belong to the server area of the dedicated-bandwidth 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.

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
&CommonRequestParameters
```

Response example

JSON format

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

```
}
```

XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
<AssociateGlobalAccelerationInstanceResponse>
  <RequestId>DDF2CC38-76C7-4000-909D-B2088158AEDA</RequestId>
</AssociateGlobalAccelerationInstanceResponse>
```

16.6 UnassociateGlobalAccelerationInstance

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: <code>UnassociateGlobalAccelerationInstance</code>
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.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=UnassociateGlobalAccelerationInstance
&RegionId=ap-southeast-1
&GlobalAccelerationInstanceId=ga-t4nluhu6n417xxxxxxx
&CommonParameters
```

Response example

JSON format

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

```
}
```

XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
<UnassociateGlobalAccelerationInstanceResponse>
  <RequestId>BD5BCEE8-F62C-40C2-9AC3-89XXXXXXXXXX</RequestId>
</UnassociateGlobalAccelerationInstanceResponse>
```

16.7 DescribeServerRelatedGlobalAccelerationInstances

Query Global Acceleration instances bound to a backend server.



Note:

This API only supports querying dedicated-bandwidth instances.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeServerRelatedGlobalAccelerationInstances
RegionId	String	Yes	The ID of the region where the Global Acceleration instance is located. Call the DescribeRegions API to obtain the region ID.
ServerType	String	No	The type of the backend server. Valid values: - 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.
DescribeServerRelatedGlobalAccelerationInstances	List	A list of Global Acceleration instances.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DescribeServerRelatedGlobalAccelerationInstances
&RegionId=ap-northeast-1
&ServerId=i-6wefye51xxxxxxxxxxx
&CommonRequestParameters
```

Response example

JSON format

```
{
  "GlobalAccelerationInstances": {
    "GlobalAccelerationInstance": [
      {
        "GlobalAccelerationInstanceId": "ga-t4nku6vv9xxxxxxxxxx",
        "IpAddress": "12.34.56.78",
        "RegionId": "ap-southeast-1",
        "ServerIpAddress": "172.24.52.234"
      }
    ]
  },
  "RequestId": "A8252014-D8DE-4D85-AF35-AFEXXXXXXX"
}
```

XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
<DescribeServerRelatedGlobalAccelerationInstancesResponse>
  <GlobalAccelerationInstances>
    <GlobalAccelerationInstance>
      <GlobalAccelerationInstanceId>ga-t4nku6vv9xxxxxxxxxx</GlobalAccelerationInstanceId>
      <IpAddress>12.34.56.78</IpAddress>
      <RegionId>ap-southeast-1</RegionId>
      <ServerIpAddress>172.24.52.234</ServerIpAddress>
    </GlobalAccelerationInstance>
  </GlobalAccelerationInstances>
  <RequestId>A8252014-D8DE-4D85-AF35-AFEXXXXXXX</RequestId>
</DescribeServerRelatedGlobalAccelerationInstancesResponse>
```

16.8 AddGlobalAccelerationInstanceIp

Add an EIP to a shared-bandwidth instance.

Request parameters

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

Name	Type	Required	Description
RegionId	String	Yes	The ID of the region where the shared-bandwidth instance is located. Call the DescribeRegions API to obtain the region ID.
GlobalAccelerationInstanceId	String	Yes	The ID of the shared-bandwidth instance.
IpInstanceId	String	Yes	The ID of the EIP. Call the DescribeEipAddresses API to obtain the EIP ID.  Note: Make sure that the billing method of the EIP is Pay-As-You-Go, and the regions of the EIP and the instance are the same.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=AddGlobalAccelerationInstanceIp
&RegionID=cn-hangzhou
&GlobalAccelerationInstanceId=ga-m5ex47zwy1sejynidhms
&IpInstanceId=eip-bp13e9i2qst4g6jzi35tc
&CommonRequestParameters
```

Response example

JSON format

```
{
  "RequestId": "01FDDD49-C4B7-4D2A-A8E5-A93915C450A6"
}
```

XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
<AddGlobalAccelerationInstanceIpResponse>
  <RequestId>01FDDD49-C4B7-4D2A-A8E5-A93915C450A6</RequestId>
```

```
</AddGlobalAccelerationInstanceIpResponse>
```

16.9 RemoveGlobalAccelerationInstanceIp

Remove an EIP from a shared-bandwidth instance.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: RemoveGlobalAccelerationInstanceIp
RegionId	String	Yes	The ID of the region where the shared-bandwidth instance is located. Call the DescribeRegions API to obtain the region ID.
GlobalAccelerationInstanceId	String	Yes	The ID of the shared-bandwidth instance.
IpInstanceId	String	Yes	The ID of the EIP to remove. Call the DescribeEipAddresses API to obtain the EIP ID.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=RemoveGlobalAccelerationInstanceIp
&RegionID=cn-hangzhou
&GlobalAccelerationInstanceId=ga-m5ex47zwya1sejynidhms
&IpInstanceId=eip-bp13e9i2qst4g6jzi35tc
&CommonRequestParameters
```

Response example

JSON format

```
{
  "RequestId": "01FDDD49-C4B7-4D2A-A8E5-A93915C450A6"
```

```
}
```

XML format

```
<? xml version="1.0" encoding="UTF-8" ? >  
<RemoveGlobalAccelerationInstanceIpResponse>  
  <RequestId>01FDDD49-C4B7-4D2A-A8E5-A93915C450A6</RequestId>  
</RemoveGlobalAccelerationInstanceIpResponse>
```

17 Internet Shared Bandwidth

17.1 AddCommonBandwidthPackageIp

Add an EIP to an Internet Shared Bandwidth instance.

Note the following before calling this API to add an EIP:

- You can only add a Pay-As-You-Go EIP.
- The EIP and the Internet Shared Bandwidth instance must be in the same region.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: AddCommonBandwidthPackageIp
RegionId	String	Yes	The ID of the region where the Internet Shared Bandwidth instance is located. You can obtain the region ID by calling the DescribeRegions API.
BandwidthPackageId	String	Yes	The ID of the Internet Shared Bandwidth instance.
IpInstanceId	String	No	The ID of the EIP instance. You can obtain the ID of the EIP instance by calling the DescribeEipAddresses API.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=AddCommonBandwidthPackageIp
&RegionID=cn-hangzhou
&BandwidthPackageId=cbwp-bp1vevu8h3ieh5xkcdhdy
&IpInstanceId=eip-bp13e9i2qst4g6jzi35tc
&CommonParameters
```

Response example

JSON format

```
{
  "RequestId": "01FDDD49-C4B7-4D2A-A8E5-A93915C450A6"
}
```

XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
<AddCommonBandwidthPackageIpResponse>
  <RequestId>01FDDD49-C4B7-4D2A-A8E5-A93915C450A6</RequestId>
</AddCommonBandwidthPackageIpResponse>
```

17.2 DeleteCommonBandwidthPackage

Delete an Internet Shared Bandwidth instance.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DeleteCommonBandwidthPackage
RegionId	String	Yes	The ID of the region where the Internet Shared Bandwidth instance is located. You can obtain the region ID by calling the DescribeRegions API.
BandwidthPackageId	String	Yes	The ID of the Internet Shared Bandwidth instance.
Force	Boolean	No	Specify whether to delete the Internet Shared Bandwidth instance by force. Valid value: <code>false</code>: Do not delete the Internet Shared Bandwidth instance if it contains EIP. <code>true</code>: Remove all EIPs in the Internet Shared Bandwidth instance and then delete the Internet Shared Bandwidth instance.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=DeleteCommonBandwidthPackage
&RegionID=cn-hangzhou
&BandwidthPackageId=cbwp-bp1vevu8h3ieh5xkcdhdy
&CommonParameters
```

Response example

JSON format

```
{
  "RequestId": "B400EF57-60E3-4D61-B8FB-7FA8F72DF5A6"
}
```

XML format

```
<? xml version="1.0" encoding="UTF-8"? >
<DeleteCommonBandwidthPackageResponse>
  <RequestId>B400EF57-60E3-4D61-B8FB-7FA8F72DF5A6</RequestId>
</DeleteCommonBandwidthPackageResponse>
```

17.3 DescribeCommonBandwidthPackages

Query Internet Shared Bandwidth instances in a region.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: DescribeCommonBandwidthPackages
RegionId	String	Yes	The ID of the region where the Internet Shared Bandwidth instance is located. You can obtain the region ID by calling the DescribeRegions API.
BandwidthPackageId	String	Yes	The ID of the Internet Shared Bandwidth instance.
PageNumber	Integer	No	The number of pages to return. The default value is 1.
PageSize	Integer	No	The number of rows per page. The maximum value is 50 and the default value is 10.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.
TotalCount	String	The number of queried entries.
PageNumber	Integer	The current page number.
PageSize	String	The number of rows per page.
CommonBandwidthPackages	List	A list of Internet Shared Bandwidth instances.

Table 17-1: CommonBandwidthPackage

Name	Type	Description
BandwidthPackageId	String	The ID of the Internet Shared Bandwidth instance.
Name	String	The name of the Internet Shared Bandwidth instance.
Description	String	The description of the Internet Shared Bandwidth instance.
Bandwidth	Integer	The peak bandwidth of the Internet Shared Bandwidth instance.
InternetChargeType	String	The billing method of the Internet Shared Bandwidth instance. - PayBy95: Pay by classic 95th percentile pricing. - PayByBandwidth: Pay by bandwidth.
BusinessStatus	String	The business status of the Internet Shared Bandwidth instance. - Normal: normal - FinancialLocked: Locked because the instance is overdue

Table 17-2: PublicIpAddresses

Name	Type	Description
IpAddress	String	The address of the EIP.
AllocationId	String	The ID of the EIP instance.

Examples

Request example

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

Response example

JSON format

```
{
  "DescribeCommonBandwidthPackagesResponse": {
    "PageNumber": 1,
    "TotalCount": "1",
    "PageSize": 10,
    "RequestId": "20E6FD1C-7321-4DAD-BDFD-EC8769E4AA33",
    "CommonBandwidthPackages": {
      "CommonBandwidthPackage": {
        "ZoneId": "cn-hangzhou-d",
        "InternetChargeType": "PayByBandwidth",
        "Name": "abc",
        "CreationTime": "2017-06-28T06:39:20Z",
        "Status": "Available",
        "BandwidthPackageId": "cbwp-bp1vevu8h3ieh5xkcdhdy",
        "BusinessStatus": "Normal",
        "RegionId": "cn-hangzhou",
        "Ratio": "100",
        "InstanceChargeType": "PostPaid",
        "PublicIpAddresses": {
          "PublicIpAdresse": [
            {
              "IpAddress": "116.62.129.250",
              "AllocationId": "eip-bp13e9i2qst4g6jzi35tc"
            }
          ]
        },
        "Bandwidth": "20"
      }
    }
  }
}
```

XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
<DescribeCommonBandwidthPackagesResponse>
  <PageNumber>1</PageNumber>
  <TotalCount>1</TotalCount>
  <PageSize>10</PageSize>
  <RequestId>20E6FD1C-7321-4DAD-BDFD-EC8769E4AA33</RequestId>
  <CommonBandwidthPackages>
    <CommonBandwidthPackage>
      <Description/>
      <ZoneId>cn-hangzhou-d</ZoneId>
      <InternetChargeType>PayByBandwidth</InternetChargeType>
      <Name>abc</Name>
      <CreationTime>2017-06-28T06:39:20Z</CreationTime>
      <Status>Available</Status>
```

```

ackageId>      <BandwidthPackageId>cbwp-bp1vevu8h3ieh5xkcdhdy</BandwidthP
ackageId>
                <BusinessStatus>Normal</BusinessStatus>
                <RegionId>cn-hangzhou</RegionId>
                <Ratio>100</Ratio>
                <InstanceChargeType>PostPaid</InstanceChargeType>
                <PublicIpAddresses>
                    <PublicIpAdresse>
                        <IpAddress>116.62.129.250</IpAddress>
                        <AllocationId>eip-bp13e9i2qst4g6jzi35tc</
AllocationId>
                    </PublicIpAdresse>
                </PublicIpAddresses>
                <Bandwidth>20</Bandwidth>
            </CommonBandwidthPackage>
        </CommonBandwidthPackages>
    </DescribeCommonBandwidthPackagesResponse>

```

17.4 ModifyCommonBandwidthPackageAttribute

Modify the name and description of an Internet Shared Bandwidth instance.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: <code>ModifyCommonBandwidthPackageAttribute</code>
RegionId	String	Yes	The ID of the region where the Internet Shared Bandwidth instance is located. You can obtain the region ID by calling the DescribeRegions API.
BandwidthPackageId	String	Yes	The ID of the Internet Shared Bandwidth instance.
Name	String	No	The name of the Internet Shared Bandwidth instance. The name can contain 2-128 characters including a-z, A-Z, 0-9, periods, underlines, and hyphens. It must start with English letters, but cannot start with <code>http://</code> or <code>https://</code> .
Description	String	No	The description of the Internet Shared Bandwidth instance. The description can contain 2-256 characters. It must start with English letters, but cannot start with <code>http://</code> or <code>https://</code> .

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyCommonBandwidthPackageAttribute
&RegionID=cn-hangzhou
&BandwidthPackageId=cbwp-bp1vevu8h3ieh5xkcdhdy
&Name=abc
&CommonParameters
```

Response example

JSON format

```
{
  "RequestId": "B450CAD8-50BC-4506-ADA7-35C6CE63E96B6"
}
```

XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
<ModifyCommonBandwidthPackageAttributeResponse>
  <RequestId>B450CAD8-50BC-4506-ADA7-35C6CE63E96B</RequestId>
</ModifyCommonBandwidthPackageAttributeResponse>
```

17.5 ModifyCommonBandwidthPackageSpec

Modify the peak bandwidth of an Internet Shared Bandwidth instance.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: <code>ModifyCommonBandwidthPackageSpec</code>
RegionId	String	Yes	The ID of the region where the Internet Shared Bandwidth instance is located. You can obtain the region ID by calling the DescribeRegions API.
Bandwidth	Integer	Yes	The peak bandwidth in Mbps of the Internet Shared Bandwidth instance.
BandwidthPackageId	String	Yes	The ID of the Internet Shared Bandwidth instance.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyCommonBandwidthPackageSpec
&RegionID=cn-hangzhou
&Bandwidth=20
&BandwidthPackageId=cbwp-bp1vevu8h3ieh5xkcdhdy
&CommonParameters
```

Response example

JSON format

```
{
  "RequestId": "7F129000-F929-4AF5-BE8D-BAE434C795306"
}
```

XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
<ModifyCommonBandwidthPackageSpecResponse>
  <RequestId>7F129000-F929-4AF5-BE8D-BAE434C79530</RequestId>
</ModifyCommonBandwidthPackageSpecResponse>
```

17.6 RemoveCommonBandwidthPackageIp

Remove an EIP from an Internet Shared Bandwidth instance.

Request parameters

Name	Type	Required	Description
Action	String	Yes	The action to perform. Valid value: RemoveCommonBandwidthPackageIp
RegionId	String	Yes	The ID of the region where the Internet Shared Bandwidth instance is located. You can obtain the region ID by calling the DescribeRegions API.
BandwidthPackageId	String	Yes	The ID of the Internet Shared Bandwidth instance.
IpInstanceId	String	No	The ID of the EIP instance.

Name	Type	Required	Description
			You can obtain the ID of the EIP instance by calling the DescribeEipAddresses API.

Response parameters

Name	Type	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=RemoveCommonBandwidthPackageIp
&RegionID=cn-hangzhou
&BandwidthPackageId=cbwp-bp1vevu8h3ieh5xkcdhdy
&IpInstanceId=eip-bp13e9i2qst4g6jzi35tc
&CommonParameters
```

Response example

JSON format

```
{
  "RequestId": "0876DAB2-6A86-479B-96BC-C5A2458568D2"
}
```

XML format

```
<? xml version="1.0" encoding="UTF-8" ? >
<RemoveCommonBandwidthPackageIpResponse>
  <RequestId>0876DAB2-6A86-479B-96BC-C5A2458568D2</RequestId>
</RemoveCommonBandwidthPackageIpResponse>
```