

Alibaba Cloud

弹性公网IP

API Reference

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Document conventions

Style	Description	Example
	A danger notice indicates a situation that will cause major system changes, faults, physical injuries, and other adverse results.	 Danger: Resetting will result in the loss of user configuration data.
	A warning notice indicates a situation that may cause major system changes, faults, physical injuries, and other adverse results.	 Warning: Restarting will cause business interruption. About 10 minutes are required to restart an instance.
	A caution notice indicates warning information, supplementary instructions, and other content that the user must understand.	 Notice: If the weight is set to 0, the server no longer receives new requests.
	A note indicates supplemental instructions, best practices, tips, and other content.	 Note: You can use Ctrl + A to select all files.
>	Closing angle brackets are used to indicate a multi-level menu cascade.	Click Settings > Network > Set network type .
Bold	Bold formatting is used for buttons, menus, page names, and other UI elements.	Click OK .
Courier font	Courier font is used for commands.	Run the <code>cd /d C:/window</code> command to enter the Windows system folder.
Italic	Italic formatting is used for parameters and variables.	<code>bae log list --instanceid Instance_ID</code>
[] or [a b]	This format is used for an optional value, where only one item can be selected.	<code>ipconfig [-all -t]</code>

Style	Description	Example
{ } or {a b}	This format is used for a required value, where only one item can be selected.	switch {active stand}

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1 API overview

Elastic IP (EIP) provides the following operations for you. The API endpoint of EIP is `vpc.aliyuncs.com`. For more information, see the EIP documentation of Virtual Private Cloud (VPC).

API	Description
AllocateEipAddress	Applies for Elastic IP addresses.
#unique_5	Applies for a group of continuous Elastic IP addresses.
AssociateEipAddress	Associates an Elastic IP address with an Alibaba Cloud instance in the same region.
#unique_7	Disassociates an Elastic IP address from an Alibaba Cloud instance .
DescribeEipAddresses	Queries the Elastic IP addresses that have been created in a specified region.
#unique_9	Queries groups of continuous Elastic IP addresses.
DescribeEipGatewayInfo	Queries gateway and subnet mask information about a specified Elastic IP address.
#unique_11	Queries monitoring information about a specified Elastic IP address.
ModifyEipAddressAttribute	Modifies the name, descriptions, and peak bandwidth of a specified Elastic IP address.
#unique_13	Releases specified Elastic IP addresses.
#unique_14	Releases a group of continuous Elastic IP addresses.
MoveResourceGroup	Modifies the resource group to which the cloud resources belong.

2 Call APIs

Elastic IP Address (EIP) and VPC use the same service address (endpoint). When you call an EIP API, an HTTP GET request is sent to the API service address of EIP, and the system responds according to the parameters set in the request. Both the request and the response are UTF-8-encoded.

Request syntax

EIP APIs use RPC style. You can call EIP APIs by sending HTTP GET requests.

The request syntax is as follows:

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

where:

- **Endpoint:** The endpoint of EIP APIs is `vpc.aliyuncs.com`.
- **Action:** the name of the action. For example, if you need to create an EIP, the action is **AllocateEipAddress**.
- **Version:** the version of the API. The version of EIP APIs is 2016-04-28.
- **Parameters:** the request parameters. Separate multiple parameters by using ampersands (&).

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

The following is an example of calling `AllocateEipAddress` to create an EIP:



Note:

The following code has been edited to ease readability.

```
https://vpc.aliyuncs.com/?Action=AllocateEipAddress
&Format=xml
&Version=2016-04-28
&Signature=xxxx%xxxx%3D
&SignatureMethod=HMAC-SHA1
&SignatureNonce=15215528852396
&SignatureVersion=1.0
&AccessKeyId=key-test
&Timestamp=2012-06-01T12:00:00Z
```

...

API authorization

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

For a list of EIP resources and interfaces that can be authorized, see [#unique_18](#).

API signature

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

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

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=XXXX%3D&SignatureNonce=3ee8c1b8-83d3-44af-a94f-4e0axxxxxxxxx
```

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

```
http://vpc.aliyuncs.com/?Action=AllocateEipAddress
&Timestamp=2016-05-23T12:46:24Z
&Format=XML
&AccessKeyId=testid
&SignatureMethod=HMAC-SHA1
&SignatureNonce=3ee8c1b8-83d3-44af-a94f-4e0axxxxxxxxx
&Version=2014-05-26
&SignatureVersion=1.0
```

To generate the signature, follow these steps:

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

```
GET&%2F&AccessKeyId%3Dtestid&Action%3DAllocateEipAddress&Format%3DXML&SignatureMethod%3DHMAC-SHA1&SignatureNonce%3D3ee8c1b8-83d3-44af-a94f-
```

```
4e0axxxxxxxx&SignatureVersion%3D1.0&TimeStamp%3D2016-02-23T12%253A46%253A24Z&Version%3D2014-05-15
```

2. Calculate the HMAC value of the string.

Add an ampersand (&) after the AccessKeySecret to add the key of the HMAC value. In this example, the key is testsecret&.

```
CT9X0VtwR86fNWS*****juE=
```

3. Add the signature to the request parameter.

```
http://vpc.aliyuncs.com/?Action=AllocateEipAddress
&Timestamp=2016-05-23T12:46:24Z
&Format=XML
&AccessKeyId=testid
&SignatureMethod=HMAC-SHA1
&SignatureNonce=3ee8c1b8-83d3-44af-a94f-4e0axxxxxxxx
&Version=2014-05-26
&SignatureVersion=1.0
&Signature=XXXX%3D
```

3 Common parameters

Common request parameters

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

Table 3-1: Common request parameters

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

Common response parameters

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

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

- XML format

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

- JSON format

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

4 Elastic IP Address

4.1 AllocateEipAddress

Creates an Elastic IP Address (EIP).

Issues to note

Before you call this API, make sure that you have known the billing methods and prices of EIPs. For more information, see [Billing method](#).

After you call this API, an EIP in the **Available** state is allocated in the specified region. EIP supports ICMP, TCP, and UDP protocols, but does not support the IGMP and SCTP protocols.

Debug

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

Request parameters

Parameter	Type	Required ?	Example value	Description
Action	String	Yes	AllocateEipAddress	The name of this action. Value: AllocateEipAddress
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the EIP belongs. To query the region ID, call DescribeRegions .
AutoPay	Boolean	No	false	Indicates whether to pay automatically. Leave this parameter blank.
Bandwidth	String	No	5	Optional. The peak bandwidth of the EIP. Unit: Mbit/s. Default value: 5

Parameter	Type	Required ?	Example value	Description
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	Optional. The client token used to guarantee the idempotence of the request. The value of this parameter is generated by the client. The value is unique among different requests and 1 to 64 ASCII characters in length.
ISP	String	No	BGP	Optional. The type of the line. Default value: BGP . <ul style="list-style-type: none"> If you have enabled a single-line bandwidth whitelist, you can set the ISP parameter to ChinaTelecom, ChinaUnicom or ChinaMobile to enable a single-line EIP provided by China Telecom, China Unicom, and China Mobile respectively. This parameter is required if you are a financial cloud user and select the Hangzhou region. Value: BGP_FinanceCloud
InstanceChargeType	String	No	PostPaid	The payment method of the EIP. Value: PostPaid (Pay-As-You-Go). The value of the InternetChargeType parameter must be PayByTraffic . For more information about the Pay-As-You-Go billing method, see Pay-As-You-Go .

Parameter	Type	Required ?	Example value	Description
InternetChargeType	String	No	PayByTraffic	Optional. The billing method of the EIP. Value: PayByTraffic , which means traffic-based billing. For more information, see Traffic-based billing .
Netmode	String	No	Public	Optional. The network type. Default value: Public
Period	Integer	No	1	The purchase period. Leave this parameter blank.
PricingCycle	String	No	Month	The billing cycle of Subscription. Leave this parameter blank.
ResourceGroupid	String	No	rg-acfmxazffg gds****	Optional. The ID of the enterprise resource group.

Response parameters

Parameter	Type	Example value	Description
EipAddress	String	12.xx.xx.78	The created EIP.
AllocationId	String	eip-25877c70gd dh****	The ID of the EIP.
OrderId	Long	10	The order number, which is returned only when InstanceChargeType is set to PrePaid.
RequestId	String	4EC47282-1B74 -4534-BD0E- 403F3EE64CAF	The request ID.
ResourceGroupid	String	rg-acfmxazfdgdg ****	The ID of the enterprise resource group.

Examples

Request example

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

Response examples

XML format

```
<AllocateEipAddressResponse>
  <AllocationId>eip-25877c70gfdkh****</AllocationId>
  <EipAddress>123.xx.xx.206</EipAddress>
  <RequestId>B6B9F518-60F8-4D81-9242-1207B356754D</RequestId>
</AllocateEipAddressResponse>
```

JSON format

```
{
  "RequestId": "B6B9F518-60F8-4D81-9242-1207B356754D",
  "EipAddress": "123.xx.xx.206",
  "AllocationId": "eip-25877c70gfdkh****"
}
```

Errors

HTTP status code	Error code	Error message	Description
403	Forbidden	User not authorized to operate on the specified resource.	You are not authorized to operate on this resource.
400	QuotaExceeded. Eip	Elastic IP address quota exceeded	The quota of EIPs has been reached. To increase the quota, open a ticket. Alternatively, we recommend that you use NAT Gateway to obtain more IP addresses.
400	InvalidParameter	Specified value of "InternetChargeType" is not valid	The value of the InternetChargeType parameter is invalid.
400	InvalidParameter	Specified value of "Bandwidth" is not valid.	The specified bandwidth value is invalid.

HTTP status code	Error code	Error message	Description
400	QuotaExceeded. Eip	Elastic IP address quota exceeded.	The quota of EIPs has been reached. To increase the quota, open a ticket. Alternatively, we recommend that you use NAT Gateway to obtain more IP addresses.
400	ReserveIpFail	Reserve eip failed.	The operation to reserve the EIP failed.
400	InvalidRegion. NotSupport	The specified region does not support.	The specified region does not support this operation.

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

4.2 AssociateEipAddress

Associates an EIP with a cloud product instance in the same region.

Note the following when you call this action:

- You can associate an EIP with a resource that is VPC ECS instance, a VPC SLB instance, or a NAT Gateway in the same region.
- To associate an EIP with a NAT Gateway, make sure that there was no NAT bandwidth package under your account before January 26, 2018. Otherwise open a ticket to associate the EIP with the NAT Gateway.

Debug

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

Request parameters

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

Parameter	Type	Required ?	Example value	Description
AllocationId	String	Yes	eip-2zeerraiwb7ujxxxxxxxx	The ID of the EIP.
InstanceId	String	Yes	i-2zebb08phy czxxxxxxxx	The ID of the instance to associate.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the EIP belongs.
InstanceRegionId	String	No	cn-hangzhou	The ID of the region to which the associated instance belongs.
InstanceType	String	No	EcsInstance	The type of the cloud product instance to associate. Valid values: Nat SblInstance EcsInstance NetworkInterface .
Mode	String	No	NAT	The mode of associating. Valid values: NAT MULTI_BINDED .
PrivateIpAddress	String	No	192.xx.xx.4	An IP address in the CIDR block of the VSwitch. If you leave the option empty, the system allocates a private IP address according to the VPC ID and VSwitch ID.

Response parameters

Parameter	Type	Example value	Description
RequestId	String	COFD0EED-F90D-4479-803D-DD62335357E5	The ID of the request.

Examples

Request example

```
http(s)://vpc.aliyuncs.com/? Action=AssociateEipAddress
&AllocationId=eip-2zeerraiwb7ujxxxxxxxxx
&InstanceId=i-2zebb08phyczxxxxxxxxx
&<CommonParameters>
```

Response example

XML format

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

JSON format

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

Error codes

HTTP status code	Error code	Error message	Description
400	InvalidAssociation.Duplicated	Specified instance already is associated.	This instance is already associated with an EIP or a Global Acceleration instance. You must delete this instance before you can associate it with a different EIP or Global Acceleration instance.
400	OperationDenied	Specified instance is not in VPC.	The specified instance does not exist in the VPC.
400	InvalidParameter.Mismatch	Specified elastic IP address and ECS instance are not in the same region.	The specified EIP and ECS instance are not in the same region.
400	IncorrectEipStatus	Current elastic IP status does not support this operation	The current status of the specified EIP address does not support this operation.

HTTP status code	Error code	Error message	Description
404	InvalidInstanceId.NotFound	Specified instance does not exist.	The specified instance does not exist.
400	IncorrectInstanceStatus	Current instance status does not support this operation.	The current instance status does not support this operation.
400	InvalidInstanceType.ValueNotSupported	The specified value of InstanceType is not supported.	The value of the InstanceType parameter is invalid.
400	IncorrectHaVipStatus	HaVip can be operated by this action only when it's status is Available or InUse.	You can perform this operation only if the HAVIP is the Available or InUse state.
400	InvalidParameter	The specified parameter is not valid.	The specified parameter value is invalid.
400	OperationDenied	Eip of default vpc not allow this operation	The EIP of the default VPC does not support this operation.
400	Forbidden	The eip instance owener error	You need to be authorized to call the EIP. Please check that you have the appropriate permissions and try again.
400	InvalidBindingStatus	The eip binding status invalid.	The associating status of the EIP is invalid.
400	BIND_INSTANCE_HAVE_PORTMAP_OR_BIND_EIP	The instance may have portMap or already bind eip .	You must delete the existing port forwarding rule associated with the ECS instance first.
400	BIND_INSTANCE_OWENER_ERROR	Cannot operate the eip.	You cannot operate this EIP.
404	InvalidAllocationId.NotFound	Specified allocation ID is not found	The specified public IP address does not exist.

HTTP status code	Error code	Error message	Description
400	InvalidParams.NotFound	instance not found	The specified instance does not exist.

[See common error codes](#)

4.3 ModifyEipAddressAttribute

Modifies the name, description, and peak bandwidth of an Elastic IP Address (EIP).

Debug

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

Request parameters

Parameter	Type	Required ?	Example value	Description
Action	String	Yes	ModifyEipAddressAttribute	The name of this action. Value: ModifyEipAddressAttribute
AllocationId	String	Yes	eip-2zeerraiwb7uj6i0d0fo3	The instance ID of the EIP.
RegionId	String	Yes	cn-hangzhou	The region ID of the VPC to which the route table belongs.
Bandwidth	String	No	100	Optional. The peak bandwidth of the EIP. Unit: Mbit/s
Description	String	No	Description	Optional. The description of the EIP. The description must be 2 to 256 characters in length. It must start with a letter. It cannot start with <code>http://</code> or <code>https://</code> .

Parameter	Type	Required ?	Example value	Description
Name	String	No	Test123	Optional. The name of the EIP. The name must be 2 to 128 characters in length. It must start with a letter. It can contain numbers, periods (.), underscores (_), and hyphens (-). It cannot start with http:// or https://.

Response parameters

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

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyEipAddressAttribute
&AllocationId=eip-25877c70xxxxxxxxx
&Name=eip1
&<CommonParameters>
```

Response example

XML format

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

JSON format

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


}

Errors

HTTP status code	Error code	Error message	Description
400	InsufficientBalance.Eip	Your account does not have enough balance.	Your account balance is insufficient.
404	InvalidAllocationId.NotFound	Specified allocation ID is not found	The specified public IP address does not exist.
400	InvalidParameter	Specified value of "Bandwidth" is not supported.	The specified bandwidth is invalid.
500	InternalServerError	The request processing has failed due to some unknown error.	The request failed to be processed due to unknown errors.
400	IncorrectEipStatus	Current elastic IP status does not support this operation.	The status of the specified EIP does not permit this operation.
404	InvalidAllocationId.NotFound	Specified allocation ID is not found..	The specified public IP address does not exist.
400	InvalidParameter	The parameter is invalid.	The specified parameter value is invalid.
404	Forbidden.RegionNotFound	Specified region is not found during access authentication.	The specified region does not exist.

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

4.4 DescribeEipAddresses

Queries one or more Elastic IP addresses in a specified region.

Make the API call

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

Request parameters

Parameter	Type	Required ?	Example value	Description
Action	String	Yes	DescribeEipAddresses	The name of this action. Value: DescribeEipAddresses
RegionId	String	Yes	cn-hangzhou	The ID of the region to be queried. To query the region ID, call DescribeRegions .
IncludeReservationData	Boolean	No	true	Indicates whether to return data of orders that have not taken effect. Valid values: <ul style="list-style-type: none"> false (default): Do not include data of orders that have not taken effect in the returned result. true: Include data of orders that have not taken effect in the returned result.
Status	String	No	Available	The status of the Elastic IP address. Valid values: <ul style="list-style-type: none"> Associating: The Elastic IP address is being associated with a cloud instance. Unassociating: The Elastic IP address is being disassociated from a cloud instance. InUse: The Elastic IP address is already allocated. Available: The Elastic IP address is available.

Parameter	Type	Required ?	Example value	Description
EipAddress	String	No	116.xx.xx.28	The IP address of the Elastic IP address. After this parameter is specified, you can view information about the specified Elastic IP address.
AllocationId	String	No	eip-2zeerraiwb7ujxscd****	The ID of the Elastic IP address to be queried.
SegmentInstanceId	String	No	eip-bp1utfpg4zlhodba****	The instance ID of the consecutive Elastic IP address.
ResourceGroupID	String	No	rg-acfmxazb4pcdvf****	The ID of the resource group to which the Elastic IP address belongs.
PageNumber	Integer	No	10	The page number. Default value: 1
PageSize	Integer	No	10	The number of entries per page in the case of a paged query result. Maximum value: 100 . Default value: 10
ISP	String	No	BGP	The service provider. Valid value: BGP .
Filter.1.Key	String	No	CreationStartTime	The filter key used to query resources. The value must be CreationStartTime (Start time of resource creation).

Parameter	Type	Required ?	Example value	Description
Filter.2.Key	String	No	CreationEndTime	The filter key used to query resources. The value must be CreationEndTime (End time of resource creation).
Filter.1.Value	String	No	2018-01-22T09:12Z	The filter value used to query resources. UTC time is used. Format: YYYY-MM-DDThh:mmZ
Filter.2.Value	String	No	2018-01-22T09:15Z	The filter value used to query resources. UTC time is used. Format: YYYY-MM-DDThh:mmZ
LockReason	String	No	financial	The reason why the Elastic IP address is locked. Valid values: <ul style="list-style-type: none"> • financial: The Elastic IP address is locked due to overdue payments. • security: The Elastic IP address is locked for security reasons.

Parameter	Type	Required ?	Example value	Description
Associated InstanceType	String	No	EcsInstance	<p>The type of the cloud product instance to associate. Valid values:</p> <ul style="list-style-type: none"> • EcsInstance (default): Elastic Compute Service (ECS) instance of the VPC network • SlbInstance: Server Load Balancer (SLB) instance of the VPC network • Nat: NAT Gateway • HaVip: High-Availability Virtual IP Address (HaVip) • NetworkInterface: Secondary Elastic Network Interface (ENI) <p>Each ECS instance, SLB instance, and HaVip can only be associated with one Elastic IP address. One NAT Gateway can be associated with multiple Elastic IP addresses. The number of Elastic IP addresses that a secondary ENI can be associated with is affected by its Elastic IP address association mode. For more information, see Elastic IP Address overview.</p>
Associated InstanceId	String	No	i-2zebb08phyccdvf****	The ID of the cloud instance.
ChargeType	String	No	PostPaid	<p>The billing method of the Elastic IP address. Valid value:</p> <p>PostPaid: Pay-as-you-go</p>

Response parameters

Parameter	Type	Example value	Description
RequestId	String	4EC47282-1B74-4534-BD0E-403F3EE64CAF	The ID of the request.
TotalCount	Integer	10	The number of total entries.
PageNumber	Integer	10	The current page number.
PageSize	Integer	10	The number of entries per page.
EipAddresses	Array		Details of Elastic IP addresses.
RegionId	String	cn-hangzhou	The ID of the region to which the Elastic IP address belongs.
IpAddress	String	101.xx.xx.36	The IP address of the Elastic IP address.
AllocationId	String	eip-2zeerraiwb7ujcdfv****	The instance ID of the Elastic IP address.
Status	String	Associating	The status of the Elastic IP address. <ul style="list-style-type: none"> • Associating: The Elastic IP address is being associated with a cloud instance. • Unassociating: The Elastic IP address is being disassociated from a cloud instance. • InUse: The Elastic IP address is already allocated. • Available: The Elastic IP address is available.
InstanceId	String	i-bp15zckdt37cdfv****	The ID of the associated instance.
Bandwidth	String	5	The peak bandwidth of the Elastic IP address. Unit: Mbit/s

Parameter	Type	Example value	Description
EipBandwidth	String	101	The bandwidth of the Elastic IP address before the Elastic IP address is added to or after the it is removed from the Internet Shared Bandwidth instance.
InternetChargeType	String	PayByBandwidth	The billing model of the Elastic IP address. <ul style="list-style-type: none"> • PayByBandwidth: Pay-by-bandwidth • PayByTraffic: Pay-by-data-transfer
AllocationTime	String	2019-04-23T01:37:38Z	The time when the Elastic IP address was created.
InstanceType	String	EcsInstance	The type of the cloud instance that is associated with the Elastic IP address. <ul style="list-style-type: none"> • EcsInstance: ECS instance of the VPC network • SlbInstance: SLB instance of the VPC network • Nat: NAT Gateway • HaVip: HaVip • NetworkInterface: Secondary ENI
InstanceRegionId	String	cn-hangzhou	The region ID of the associated resource.
ChargeType	String	PostPaid	The billing method of the Elastic IP address. Valid values: <ul style="list-style-type: none"> • PrePaid: Subscription • Postpaid: Pay-as-you-go

Parameter	Type	Example value	Description
ExpiredTime	String	2019-04-29T02:00Z	The time when the Elastic IP address expires. This value follows the ISO 8601 standard and uses UTC time. Format: YYYY-MM-DDThh:mmZ.
HDMonitorStatus	String	false	Indicates whether high granularity monitoring is enabled for the Elastic IP address. <ul style="list-style-type: none"> false: Disabled. true: Enabled.
Name	String	test	The name of the Elastic IP address.
ISP	String	BGP	The service provider.
Description	String	abc	The description of the Elastic IP address.
BandwidthPackageId	String	cbwp-bp1ego3i4j07ccdvf****	The ID of the Internet Shared Bandwidth instance to which the Elastic IP address is added.
BandwidthPackageType	String	CommonBandwidthPackage	The type of the bandwidth. Valid value: CommonBandwidthPackage (shared-bandwidth).
BandwidthPackageBandwidth	String	50	The bandwidth of the Internet Shared Bandwidth to which the Elastic IP address is added.
ResourceGroupId	String	rg-acfmxazcdxs****	The ID of the resource group.

Parameter	Type	Example value	Description
HasReservationData	String	false	Indicates whether renewal data is involved. The value of this parameter is true only when the value of the parameter IncludeReservationData is true , and orders that have not taken effect exist.
ReservationBandwidth	String	12	The bandwidth of the Elastic IP address after the renewal.
ReservationInternetChargeType	String	PayByBandwidth	The billing model of the renewal. <ul style="list-style-type: none"> • PayByBandwidth: Pay-by-bandwidth • PayByTraffic: Pay-by-data-transfer
ReservationActiveTime	String	2019-03-11T16:00:00Z	The time when the renewal takes effect.
ReservationOrderType	String	RENEWCHANGE	The type of the renewal order. Valid values: <ul style="list-style-type: none"> • RENEWCHANGE: Change the specification. • TEMP_UPGRADE: Temporarily upgrade the Elastic IP address. • UPGRADE: Upgrade the Elastic IP address.
DeletionProtection	Boolean	true	Indicates whether deletion protection is enabled for the Elastic IP address. <ul style="list-style-type: none"> • true: Enabled. • false: Disabled.
SecondLimited	Boolean	false	Indicates whether level-2 speed limit is enabled. <ul style="list-style-type: none"> • true: Enabled. • false: Disabled.

Parameter	Type	Example value	Description
SegmentInstanceId	String	eip-bp1utfpg4zlhodba****	The instance ID of the consecutive Elastic IP address. This parameter value is returned only when the Elastic IP address is a consecutive Elastic IP address.
OperationLocks	Array		The reason why the Elastic IP address is locked.
LockReason	String	financial	The reason why the Elastic IP address is locked. <ul style="list-style-type: none"> • financial: The Elastic IP address is locked due to overdue payments. • security: The Elastic IP address is locked for security reasons.
AvailableRegions	List	cn-hangzhou	The ID of the region to which the Elastic IP address belongs.

Examples

Request example

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

Response example

XML format

```
<DescribeEipAddressesResponse>
  <PageNumber>1</PageNumber>
  <EipAddresses>
    <EipAddress>
      <HDMonitorStatus>OFF</HDMonitorStatus>
      <BandwidthPackageBandwidth>5</BandwidthPackageBandwidth>
      <HasReservationData>>false</HasReservationData>
      <InstanceId>ngw-bp1kpih7t3izsxezx****</InstanceId>
      <ISP>BGP</ISP>
      <InternetChargeType>PayByBandwidth</InternetChargeType>
      <EipBandwidth>199</EipBandwidth>
      <BandwidthPackageType>CommonBandwidthPackage</BandwidthPackageType>
    >
    <PrivateIpAddress></PrivateIpAddress>
```

```

<SecondLimited>>false</SecondLimited>
<Bandwidth>5</Bandwidth>
<ChargeType>PostPaid</ChargeType>
<AllocationTime>2019-12-26T05:06:56Z</AllocationTime>
<ResourceGroupId>rg-acfmxazb4ph****</ResourceGroupId>
<Description>abc</Description>
<IpAddress>47.xx.xx.184</IpAddress>
<AllocationId>eip-bp1utfpg4zlhdyodba****</AllocationId>
<Mode>NAT</Mode>
<InstanceType>Nat</InstanceType>
<Name>vmeixme</Name>
<SegmentInstanceId></SegmentInstanceId>
<Status>InUse</Status>
<InstanceRegionId>cn-hangzhou</InstanceRegionId>
<BandwidthPackageId>cbwp-bp1k042riiv5aqkkq****</BandwidthPackageId>
<RegionId>cn-hangzhou</RegionId>
<DeletionProtection>>false</DeletionProtection>
<OperationLocks>
</OperationLocks>
<ExpiredTime></ExpiredTime>
<AvailableRegions>
  <AvailableRegion>cn-hangzhou</AvailableRegion>
</AvailableRegions>
</IpAddress>
</EipAddresses>
<TotalCount>1</TotalCount>
<PageSize>10</PageSize>
<RequestId>27CEB319-8242-46A8-B96B-998BCDF87D97</RequestId>
</DescribeEipAddressesResponse>

```

JSON format

```

{
  "PageNumber": 1,
  "EipAddresses": {
    "EipAddress": [
      {
        "HDMonitorStatus": "OFF",
        "BandwidthPackageBandwidth": "5",
        "HasReservationData": false,
        "InstanceId": "ngw-bp1kpih7t3izsxezx****",
        "ISP": "BGP",
        "InternetChargeType": "PayByBandwidth",
        "EipBandwidth": "199",
        "BandwidthPackageType": "CommonBandwidthPackage",
        "PrivateIpAddress": "",
        "SecondLimited": false,
        "Bandwidth": "5",
        "ChargeType": "PostPaid",
        "AllocationTime": "2019-12-26T05:06:56Z",
        "ResourceGroupId": "rg-acfmxazb4ph****",
        "Description": "abc",
        "IpAddress": "47.xx.xx.184",
        "AllocationId": "eip-bp1utfpg4zlhdyodba****",
        "Mode": "NAT",
        "InstanceType": "Nat",
        "Name": "vmeixme",
        "SegmentInstanceId": "",
        "Status": "InUse",
        "InstanceRegionId": "cn-hangzhou",
        "BandwidthPackageId": "cbwp-bp1k042riiv5aqkkq****",
        "RegionId": "cn-hangzhou",
        "DeletionProtection": false,

```

```

    "OperationLocks": {
      "LockReason": []
    },
    "ExpiredTime": "",
    "AvailableRegions": {
      "AvailableRegion": [
        "cn-hangzhou"
      ]
    }
  ]
},
"TotalCount": 1,
"PageSize": 10,
"RequestId": "27CEB319-8242-46A8-B96B-998BCDF87D97"
}

```

Errors

HTTP status code	Error code	Error message	Description
404	Forbidden. RegionNotFound	Specified region is not found during access authentication.	The specified region does not exist.
404	InvalidFilterKey. NotFound		The specified filter key is invalid.
404	InvalidFilterValue		The specified filter value is invalid.
404	InvalidLockReason. NotFound	The specified LockReason is not found	The reason why the Elastic IP address is locked is unknown.
400	InvalidAssociatedInstanceType. ValueNotSupported	The specified value of AssociatedInstanceType is not supported.	The specified value of AssociatedInstanceType is invalid.
400	InvalidChargeType. ValueNotSupported	The specified ChargeType is not supported.	The specified billing model is not supported.

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

4.5 UnassociateEipAddress

You can call this operation to disassociate an Elastic IP address from a cloud resource.

Debugging

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

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	UnassociateEipAddress	The operation that you want to perform. Set the value to UnassociateEipAddress .
AllocationId	String	Yes	eip-2zeerraiwb7uj6i0d****	The instance ID of the Elastic IP address.
Force	Boolean	No	false	Specifies whether to forcibly disassociate an Elastic IP address from a NAT gateway that is associated with a DNAT or SNAT entry. Valid values: <ul style="list-style-type: none"> false: Do not force the disassociation. This is the default value. true: Force the disassociation.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the Elastic IP address belongs.
InstanceId	String	No	i-hp3akk9irt d69jad****	The instance ID of the cloud resource from which the Elastic IP address is to disassociate.

Parameter	Type	Required	Example	Description
InstanceType	String	No	EcsInstance	The type of the cloud resource instance. Valid values: <ul style="list-style-type: none"> • EcsInstance: an ECS instance in a VPC. This is the default value. • SlbInstance: an SLB instance in a VPC. • NetworkInterface: the secondary ENI with the network type of VPC. • Nat: a NAT gateway. • HaVip a High-Availability Virtual IP Address (HaVip).
PrivateIpAddress	String	No	192.168.xx.2	The internal IP address of the ECS instance or ENI instance.
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001sdfg	The client token that is used to ensure the idempotence of the request. You can use the client to generate a token, but you must ensure that the token is unique among different requests. Only ASCII characters are allowed. It can contain a maximum of 64 ASCII characters.

Response parameters

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

Examples

Sample requests

```
http(s)://vpc.aliyuncs.com/? Action=UnassociateEipAddress
```

```
&AllocationId=eip-2zeerraiwb7uj6i0d****
&<Common request parameters>
```

Sample success responses

XML format

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

JSON format

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

Error codes

HTTP status code	Error code	Error message	Description
404	InvalidAllocationId.NotFound	Specified allocation ID is not found	The error message returned because the specified public IP address does not exist.
400	IncorrectEipStatus	Current elastic IP status does not support this operation.	The error message returned because this operation cannot be performed while the specified Elastic IP address is in the current state.
400	InvalidInstanceId.NotFound	Specified instance does not exist.	The error message returned because the specified instance does not exist.
400	IncorrectInstanceStatus	The current status of instance does not support this operation.	The error message returned because this operation cannot be performed while the instance is in the current state.
400	InvalidInstanceType.ValueNotSupported	The specified value of InstanceType is not supported.	The error message returned because the specified InstanceType value is invalid.

HTTP status code	Error code	Error message	Description
400	IncorrectHaVipStatus	This operation is denied because status of the specified HaVip is neither Available nor InUse.	The error message returned because this operation cannot be performed while the status of the specified HaVip is neither Available nor InUse.
400	OperationDenied	Eip of default vpc not allow this operation	The error message returned because this operation is not supported while the Elastic IP address that is associated with the cloud resource in the default VPC.
404	Forbidden. RegionNotFound	Specified region is not found during access authentication.	The error message returned because the specified region does not exist.
400	InvalidParameter	The specified parameter is not valid.	The error message returned because the specified value of the parameter is invalid.
400	Forbidden	The eip instance owner error	The error message returned because you are not authorized to perform this operation on the Elastic IP address.
400	InvalidBindingStatus	The eip binding status invalid.	The error message returned because the associating status of the Elastic IP address is invalid.

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

4.6 ReleaseEipAddress

Releases an Elastic IP Address (EIP).



Note:

Only EIPs in the **Available** state can be released.

Debug

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

Request parameters

Parameter	Type	Required ?	Example value	Description
Action	String	Yes	ReleaseEipAddress	The name of this action. Value: ReleaseEipAddress
AllocationId	String	Yes	eip-2zeerraiwb7uj6i0d0fo3	The ID of the EIP to be released.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the EIP belongs. To query the region ID, call DescribeRegions .

Response parameters

Parameter	Type	Example value	Description
RequestId	String	748C38F6-9A3D-482E-83FB-DB6C39C68AEA	The ID of the request.

Examples

Request example

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

Response example

XML format

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

JSON format

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

}

Errors

HTTP status code	Error code	Error message	Description
404	InvalidAllocationId.NotFound	Specified allocation ID is not found	The specified public IP address does not exist.
400	IncorrectEipStatus	Current elastic IP status does not support this operation.	The status of the specified EIP does not permit this operation.
500	InternalServerError	The request processing has failed due to some unknown error.	The request failed to be processed due to unknown errors.
404	Forbidden.RegionNotFound	Specified region is not found during access authentication.	The specified region does not exist.
400	Forbidden.ChargeTypeIsPrepaid	It's forbidden to release a prepaid EIP	Subscription EIPs cannot be released.
400	Forbidden	The eip instance owner error	You are not authorized to release the specified EIP.
400	TaskConflict.AssociateGlobalAccelerationInstance	Operate too frequent.	Too many requests were sent.

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

4.7 DescribeEipGatewayInfo

Queries the gateway address and subnet mask of an EIP.

You can only query the gateway address and subnet mask of an EIP that is associated with a secondary Elastic Network Interface (ENI) in the multi-EIP to ENI mode.

Debug

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

Request parameters

Parameter	Type	Required ?	Example value	Description
Action	String	Yes	DescribeEipGatewayInfo	The name of this action. Value: DescribeEipGatewayInfo
InstanceId	String	Yes	eni-bp1d66qjxb3qoin3xxxx	The ID of the ENI with which the EIP is associated.
RegionId	String	Yes	cn-zhangjiakou	The region ID of the EIP. To query the region ID, call DescribeRegions .

Response parameters

Parameter	Type	Example value	Description
Code	String	200	The status code of the request.
EipInfos			The details of the EIP.
Ip	String	47.xx.xx.236	The IP address of the EIP.
IpGw	String	47.xx.xx.1	The gateway address of the EIP.
IpMask	String	255.255.255.0	The subnet mask of the EIP.
Message	String	successful	The message indicating whether the request is successful.
RequestId	String	COFD0EED-F90D-4479-803D-DD62335357E5	The ID of the request.

Examples

Request example

```
http(s)://vpc.aliyuncs.com/? Action=DescribeEipGatewayInfo
&InstanceId=eni-bp1d66qjxb3qoin3****
&RegionId=cn-zhangjiakou
```

&<CommonParameters>

Response examples

XML format

```
<DescribeEipGatewayInfoResponse>
  <Message>successful</Message>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
  <EipInfos>
    <EipInfo>
      <IP>47.xx.xx. 236</IP>
      <IpMask>255.255.255.0</IpMask>
      <IpGw>47.xx.xx. 1</IpGw>
    </EipInfo>
  </EipInfos>
  <Code>200</Code>
</DescribeEipGatewayInfoResponse>
```

JSON format

```
{
  "Message": "successful",
  "RequestId": "0ED8D006-F706-4D23-88ED-E11ED28DCAC0",
  "EipInfos": {
    "EipInfo": [
      {
        "IpMask": "255.255.255.0",
        "IP": "47.xx.xx. 236",
        "IpGw": "47.xx.xx. 1"
      }
    ]
  },
  "Code": "200"
}
```

Error codes

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

[See common error codes.](#)

4.8 DescribeEipAddresses

Queries one or more Elastic IP addresses in a specified region.

Make the API call

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

Request parameters

Parameter	Type	Required ?	Example value	Description
Action	String	Yes	DescribeEipAddresses	The name of this action. Value: DescribeEipAddresses
RegionId	String	Yes	cn-hangzhou	The ID of the region to be queried. To query the region ID, call DescribeRegions .
IncludeReservationData	Boolean	No	true	Indicates whether to return data of orders that have not taken effect. Valid values: <ul style="list-style-type: none">• false (default): Do not include data of orders that have not taken effect in the returned result.• true: Include data of orders that have not taken effect in the returned result.

Parameter	Type	Required ?	Example value	Description
Status	String	No	Available	The status of the Elastic IP address. Valid values: <ul style="list-style-type: none"> • Associating: The Elastic IP address is being associated with a cloud instance. • Unassociating: The Elastic IP address is being disassociated from a cloud instance. • InUse: The Elastic IP address is already allocated. • Available: The Elastic IP address is available.
EipAddress	String	No	116.xx.xx.28	The IP address of the Elastic IP address. After this parameter is specified, you can view information about the specified Elastic IP address.
AllocationId	String	No	eip-2zeerraiwb7ujxscd****	The ID of the Elastic IP address to be queried.
SegmentInstanceId	String	No	eip-bp1utfpg4zlhodba****	The instance ID of the consecutive Elastic IP address.
ResourceGroupID	String	No	rg-acfmxazb4pcdvf****	The ID of the resource group to which the Elastic IP address belongs.
PageNumber	Integer	No	10	The page number. Default value: 1

Parameter	Type	Required ?	Example value	Description
PageSize	Integer	No	10	The number of entries per page in the case of a paged query result. Maximum value: 100 . Default value: 10
ISP	String	No	BGP	The service provider. Valid value: BGP .
Filter.1.Key	String	No	CreationStartTime	The filter key used to query resources. The value must be CreationStartTime (Start time of resource creation).
Filter.2.Key	String	No	CreationEndTime	The filter key used to query resources. The value must be CreationEndTime (End time of resource creation).
Filter.1.Value	String	No	2018-01-22T09:12Z	The filter value used to query resources. UTC time is used. Format: YYYY-MM-DDThh:mmZ
Filter.2.Value	String	No	2018-01-22T09:15Z	The filter value used to query resources. UTC time is used. Format: YYYY-MM-DDThh:mmZ
LockReason	String	No	financial	The reason why the Elastic IP address is locked. Valid values: <ul style="list-style-type: none"> financial: The Elastic IP address is locked due to overdue payments. security: The Elastic IP address is locked for security reasons.

Parameter	Type	Required ?	Example value	Description
Associated InstanceType	String	No	EcsInstance	<p>The type of the cloud product instance to associate. Valid values:</p> <ul style="list-style-type: none"> • EcsInstance (default): Elastic Compute Service (ECS) instance of the VPC network • SlbInstance: Server Load Balancer (SLB) instance of the VPC network • Nat: NAT Gateway • HaVip: High-Availability Virtual IP Address (HaVip) • NetworkInterface: Secondary Elastic Network Interface (ENI) <p>Each ECS instance, SLB instance, and HaVip can only be associated with one Elastic IP address. One NAT Gateway can be associated with multiple Elastic IP addresses. The number of Elastic IP addresses that a secondary ENI can be associated with is affected by its Elastic IP address association mode. For more information, see Elastic IP Address overview.</p>
Associated InstanceId	String	No	i-2zebb08phyccdvf****	The ID of the cloud instance.
ChargeType	String	No	PostPaid	<p>The billing method of the Elastic IP address. Valid value:</p> <p>PostPaid: Pay-as-you-go</p>

Response parameters

Parameter	Type	Example value	Description
RequestId	String	4EC47282-1B74-4534-BD0E-403F3EE64CAF	The ID of the request.
TotalCount	Integer	10	The number of total entries.
PageNumber	Integer	10	The current page number.
PageSize	Integer	10	The number of entries per page.
EipAddresses	Array		Details of Elastic IP addresses.
RegionId	String	cn-hangzhou	The ID of the region to which the Elastic IP address belongs.
IpAddress	String	101.xx.xx.36	The IP address of the Elastic IP address.
AllocationId	String	eip-2zeerraiwb7ujcdfv****	The instance ID of the Elastic IP address.
Status	String	Associating	The status of the Elastic IP address. <ul style="list-style-type: none"> • Associating: The Elastic IP address is being associated with a cloud instance. • Unassociating: The Elastic IP address is being disassociated from a cloud instance. • InUse: The Elastic IP address is already allocated. • Available: The Elastic IP address is available.
InstanceId	String	i-bp15zckdt37cdfv****	The ID of the associated instance.
Bandwidth	String	5	The peak bandwidth of the Elastic IP address. Unit: Mbit/s

Parameter	Type	Example value	Description
EipBandwidth	String	101	The bandwidth of the Elastic IP address before the Elastic IP address is added to or after the it is removed from the Internet Shared Bandwidth instance.
InternetChargeType	String	PayByBandwidth	The billing model of the Elastic IP address. <ul style="list-style-type: none"> • PayByBandwidth: Pay-by-bandwidth • PayByTraffic: Pay-by-data-transfer
AllocationTime	String	2019-04-23T01:37:38Z	The time when the Elastic IP address was created.
InstanceType	String	EcsInstance	The type of the cloud instance that is associated with the Elastic IP address. <ul style="list-style-type: none"> • EcsInstance: ECS instance of the VPC network • SlbInstance: SLB instance of the VPC network • Nat: NAT Gateway • HaVip: HaVip • NetworkInterface: Secondary ENI
InstanceRegionId	String	cn-hangzhou	The region ID of the associated resource.
ChargeType	String	PostPaid	The billing method of the Elastic IP address. Valid values: <ul style="list-style-type: none"> • PrePaid: Subscription • Postpaid: Pay-as-you-go

Parameter	Type	Example value	Description
ExpiredTime	String	2019-04-29T02:00Z	The time when the Elastic IP address expires. This value follows the ISO 8601 standard and uses UTC time. Format: YYYY-MM-DDThh:mmZ.
HDMonitorStatus	String	false	Indicates whether high granularity monitoring is enabled for the Elastic IP address. <ul style="list-style-type: none"> false: Disabled. true: Enabled.
Name	String	test	The name of the Elastic IP address.
ISP	String	BGP	The service provider.
Description	String	abc	The description of the Elastic IP address.
BandwidthPackageId	String	cbwp-bp1ego3i4j07ccdvf****	The ID of the Internet Shared Bandwidth instance to which the Elastic IP address is added.
BandwidthPackageType	String	CommonBandwidthPackage	The type of the bandwidth. Valid value: CommonBandwidthPackage (shared-bandwidth).
BandwidthPackageBandwidth	String	50	The bandwidth of the Internet Shared Bandwidth to which the Elastic IP address is added.
ResourceGroupId	String	rg-acfmxazcdxs****	The ID of the resource group.

Parameter	Type	Example value	Description
HasReservationData	String	false	Indicates whether renewal data is involved. The value of this parameter is true only when the value of the parameter IncludeReservationData is true , and orders that have not taken effect exist.
ReservationBandwidth	String	12	The bandwidth of the Elastic IP address after the renewal.
ReservationInternetChargeType	String	PayByBandwidth	The billing model of the renewal. <ul style="list-style-type: none"> • PayByBandwidth: Pay-by-bandwidth • PayByTraffic: Pay-by-data-transfer
ReservationActiveTime	String	2019-03-11T16:00:00Z	The time when the renewal takes effect.
ReservationOrderType	String	RENEWCHANGE	The type of the renewal order. Valid values: <ul style="list-style-type: none"> • RENEWCHANGE: Change the specification. • TEMP_UPGRADE: Temporarily upgrade the Elastic IP address. • UPGRADE: Upgrade the Elastic IP address.
DeletionProtection	Boolean	true	Indicates whether deletion protection is enabled for the Elastic IP address. <ul style="list-style-type: none"> • true: Enabled. • false: Disabled.
SecondLimited	Boolean	false	Indicates whether level-2 speed limit is enabled. <ul style="list-style-type: none"> • true: Enabled. • false: Disabled.

Parameter	Type	Example value	Description
SegmentInstanceId	String	eip-bp1utfpg4zlhodba****	The instance ID of the consecutive Elastic IP address. This parameter value is returned only when the Elastic IP address is a consecutive Elastic IP address.
OperationLocks	Array		The reason why the Elastic IP address is locked.
LockReason	String	financial	The reason why the Elastic IP address is locked. <ul style="list-style-type: none"> financial: The Elastic IP address is locked due to overdue payments. security: The Elastic IP address is locked for security reasons.
AvailableRegions	List	cn-hangzhou	The ID of the region to which the Elastic IP address belongs.

Examples

Request example

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

Response example

XML format

```
<DescribeEipAddressesResponse>
  <PageNumber>1</PageNumber>
  <EipAddresses>
    <EipAddress>
      <HDMonitorStatus>OFF</HDMonitorStatus>
      <BandwidthPackageBandwidth>5</BandwidthPackageBandwidth>
      <HasReservationData>>false</HasReservationData>
      <InstanceId>ngw-bp1kpih7t3izsxezx****</InstanceId>
      <ISP>BGP</ISP>
      <InternetChargeType>PayByBandwidth</InternetChargeType>
      <EipBandwidth>199</EipBandwidth>
      <BandwidthPackageType>CommonBandwidthPackage</BandwidthPackageType>
    >
    <PrivateIpAddress></PrivateIpAddress>
```

```

<SecondLimited>>false</SecondLimited>
<Bandwidth>5</Bandwidth>
<ChargeType>PostPaid</ChargeType>
<AllocationTime>2019-12-26T05:06:56Z</AllocationTime>
<ResourceGroupId>rg-acfmxazb4ph****</ResourceGroupId>
<Description>abc</Description>
<IpAddress>47.xx.xx.184</IpAddress>
<AllocationId>eip-bp1utfpg4zlhdyodba****</AllocationId>
<Mode>NAT</Mode>
<InstanceType>Nat</InstanceType>
<Name>vmeixme</Name>
<SegmentInstanceld></SegmentInstanceld>
<Status>InUse</Status>
<InstanceRegionId>cn-hangzhou</InstanceRegionId>
<BandwidthPackageId>cbwp-bp1k042riiv5aqkkq****</BandwidthPackageId>
<RegionId>cn-hangzhou</RegionId>
<DeletionProtection>>false</DeletionProtection>
<OperationLocks>
</OperationLocks>
<ExpiredTime></ExpiredTime>
<AvailableRegions>
  <AvailableRegion>cn-hangzhou</AvailableRegion>
</AvailableRegions>
</IpAddress>
</EipAddresses>
<TotalCount>1</TotalCount>
<PageSize>10</PageSize>
<RequestId>27CEB319-8242-46A8-B96B-998BCDF87D97</RequestId>
</DescribeEipAddressesResponse>

```

JSON format

```

{
  "PageNumber": 1,
  "EipAddresses": {
    "EipAddress": [
      {
        "HDMonitorStatus": "OFF",
        "BandwidthPackageBandwidth": "5",
        "HasReservationData": false,
        "Instanceld": "ngw-bp1kpih7t3izsxezx****",
        "ISP": "BGP",
        "InternetChargeType": "PayByBandwidth",
        "EipBandwidth": "199",
        "BandwidthPackageType": "CommonBandwidthPackage",
        "PrivateIpAddress": "",
        "SecondLimited": false,
        "Bandwidth": "5",
        "ChargeType": "PostPaid",
        "AllocationTime": "2019-12-26T05:06:56Z",
        "ResourceGroupId": "rg-acfmxazb4ph****",
        "Description": "abc",
        "IpAddress": "47.xx.xx.184",
        "AllocationId": "eip-bp1utfpg4zlhdyodba****",
        "Mode": "NAT",
        "InstanceType": "Nat",
        "Name": "vmeixme",
        "SegmentInstanceld": "",
        "Status": "InUse",
        "InstanceRegionId": "cn-hangzhou",
        "BandwidthPackageId": "cbwp-bp1k042riiv5aqkkq****",
        "RegionId": "cn-hangzhou",
        "DeletionProtection": false,

```

```

    "OperationLocks": {
      "LockReason": []
    },
    "ExpiredTime": "",
    "AvailableRegions": {
      "AvailableRegion": [
        "cn-hangzhou"
      ]
    }
  ]
},
"TotalCount": 1,
"PageSize": 10,
"RequestId": "27CEB319-8242-46A8-B96B-998BCDF87D97"
}

```

Errors

HTTP status code	Error code	Error message	Description
404	Forbidden. RegionNotFound	Specified region is not found during access authentication.	The specified region does not exist.
404	InvalidFilterKey. NotFound		The specified filter key is invalid.
404	InvalidFilterValue		The specified filter value is invalid.
404	InvalidLockReason. NotFound	The specified LockReason is not found	The reason why the Elastic IP address is locked is unknown.
400	InvalidAssociatedInstanceType. ValueNotSupported	The specified value of AssociatedInstanceType is not supported.	The specified value of AssociatedInstanceType is invalid.
400	InvalidChargeType. ValueNotSupported	The specified ChargeType is not supported.	The specified billing model is not supported.

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


4.9 MoveResourceGroup

You can call the MoveResourceGroup operation to change the resource group of a cloud resource.

Debugging

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

Request parameters

Parameter	Type	Required	Example	Description
Action	String	Yes	MoveResourceGroup	The operation that you want to perform. Set the value to MoveResourceGroup .
NewResourceGroupId	String	Yes	rg-acfm3peow3k****	The ID of the resource group to which the cloud resource instance is to be moved. <div style="background-color: #f0f0f0; padding: 5px;">  Note: You can use resource groups to classify cloud resources under your Alibaba Cloud account to facilitate resource management and permission control. For more information, see What is resource management? </div>
RegionId	String	Yes	cn-hangzhou	The region ID of the resource. You can call the DescribeRegions operation to obtain the region ID.
ResourceId	String	Yes	vpc-hp31psbg8ec3023s6****	The ID of the cloud resource that you want to move to the specified resource group.

Parameter	Type	Required	Example	Description
ResourceType	String	Yes	vpc	The type of the cloud resources managed by the resource group. Valid values: <ul style="list-style-type: none"> vpc: Virtual Private Cloud. eip: Elastic IP address. bandwidthpackage: EIP Bandwidth Plan.

Response parameters

Parameter	Type	Example	Description
RequestId	String	F84A05B3-7275-4C8B-8AEE-9088C639C271	The ID of the request.

Examples

Sample request

```
http(s)://[Endpoint]/? Action=MoveResourceGroup
&NewResourceGroupId=rg-acfm3peow3k****
&RegionId=cn-hangzhou
&ResourceId=vpc-hp31psbg8ec3023s6****
&ResourceType=1
&<Common request parameters>
```

Sample success responses

XML format

```
<MoveResourceGroupResponse>
  <RequestId>F84A05B3-7275-4C8B-8AEE-9088C639C271</RequestId>
</MoveResourceGroupResponse>
```

JSON format

```
{
  "RequestId": "F84A05B3-7275-4C8B-8AEE-9088C639C271"
}
```

Error codes

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