Alibaba Cloud
Elastic IP Address

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.	ⓘ Notice: 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 `cd / d  C :/ windows` command to enter the Windows system folder.
Italics	It is used for parameters and variables.	`bae  log  list -- instanceid `*`Instance_ID`*
[] or [a|b]	It indicates that it is a optional value, and only one item can be selected.	`ipconfig `*`[-all|-t]`*

Style	Description	Example
{} or {a|b}	**It indicates that it is a required value, and only one item can be selected.**	`swich` *{stand | slave}*

Contents

1 API overview

The following are available Elastic IP Address (EIP) APIs. The endpoint of EIP is `vpc . aliyuncs . com` . For more information on how to use EIP APIs, see the VPC API documentation.

API	Description
AllocateEipAddress	Create an EIP.
AssociateEipAddress	Associate an EIP with a cloud product instance in the same region.
#unique_6	Disassociate 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.
#unique_9	Release an EIP.

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 = AllocateEi  pAddress
& Format = xml
& Version = 2016 - 04 - 28
& Signature = xxxx % xxxx % 3D
& SignatureM  ethod = HMAC - SHA1
& SignatureN  once = 1521552885  2396
& SignatureV  ersion = 1 . 0
& AccessKeyI  d = key - test
& Timestamp = 2012 - 06 - 01T12 : 00 : 00Z
```

> …

API authorization

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 RAM authentication.

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 authentica tion. 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 & SignatureN  once = 3ee8c1b8 - 83d3 - 44af -
 a94f - 4e0axxxxxx  xx
```

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 = AllocateEi  pAddress
& Timestamp = 2016 - 05 - 23T12 : 46 : 24Z
& Format = XML
& AccessKeyI  d = testid
& SignatureM  ethod = HMAC - SHA1
& SignatureN  once = 3ee8c1b8 - 83d3 - 44af - a94f - 4e0axxxxxx  xx
& Version = 2014 - 05 - 26
& SignatureV  ersion = 1 . 0
```

To generate the signature, follow these steps:

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

```
GET &% 2F & AccessKeyI  d % 3Dtestid & Action % 3DAllocate
EipAddress & Format % 3DXML & SignatureM  ethod % 3DHMAC – SHA1 &
SignatureN  once % 3D3ee8c1b8 – 83d3 – 44af – a94f – 4e0axxxxxx  xx
& SignatureV  ersion % 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 &`.

```
CT9X0VtwR8  6fNWS ******** juE =
```

3. **Add the signature to the request parameter.**

```
 http :// vpc . aliyuncs . com /? Action = AllocateEi  pAddress
& Timestamp = 2016 – 05 – 23T12 : 46 : 24Z
& Format = XML
& AccessKeyI  d = testid
& SignatureM  ethod = HMAC – SHA1
& SignatureN  once = 3ee8c1b8 – 83d3 – 44af – a94f – 4e0axxxxxx  xx

& Version = 2014 – 05 – 26
& SignatureV  ersion = 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	Require?	Description
Format	String	No	The format of the response. Valid values: `JSON (default)	XML`
Version	String	Yes	The version of the API. It uses the date format `YYYY - MM - DD`. Valid value: `2016 - 04 - 28`
AccessKeyId	String	Yes	The AccessKey ID of the user who calls the API.
Signature	String	Yes	The request signature.
SignatureMethod	String	Yes	The algorithm used to create the request signature. Valid value: `HMAC - SHA1`
Timestamp	String	Yes	The time at which the request is signed. It uses the format: `YYYY - MM - DDThh : mm : ssZ`. For example, 2013-01-10T12:00:00Z.
SignatureVersion	String	Yes	The signature version to use. Valid value: `1 . 0`
SignatureNonce	String	Yes	A random number for the signature to prevent from network attacks. Different random numbers must be used for different requests.

Common response parameters

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

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

· XML format

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

· JSON format

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

4 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. · 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
InternetCh argeType	String	No	PayByTraffic	Optional. The billing method of the EIP. Value: PayByTraff ic, 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.
PricingCyc le	String	No	Month	The billing cycle of Subscripti on. Leave this parameter blank.
ResourceGr oupId	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 InstanceCh argeType is set to PrePaid.
RequestId	String	4EC47282-1B74 -4534-BD0E- 403F3EE64CAF	The request ID.
ResourceGr oupId	String	rg-acfmxazfdgdg ****	The ID of the enterprise resource group.

Examples

Request example

```
 http ( s )://[ Endpoint ]/?  Action = AllocateEi  pAddress
& RegionId = cn – hangzhou
&< CommonPara  meters >
```

Response examples

`XML` **format**

```
< AllocateEi  pAddressRe  sponse >
      < Allocation  Id > eip – 25877c70gf  dkh ****</ Allocation  Id >
      < EipAddress > 123 . xx . xx . 206 </ EipAddress >
      < RequestId > B6B9F518 – 60F8 – 4D81 – 9242 – 1207B35675  4D </
 RequestId >
</ AllocateEi  pAddressRe  sponse >
```

`JSON` **format**

```
{
 " RequestId ":" B6B9F518 – 60F8 – 4D81 – 9242 – 1207B35675  4D ",
 " EipAddress ":" 123 . xx . xx . 206 ",
 " Allocation  Id ":" eip – 25877c70gf  dkh ****"
}
```

Errors

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.
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	InvalidPar ameter	Specified value of " InternetChargeType" is not valid	The value of the InternetChargeType parameter is invalid.
400	InvalidPar ameter	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 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
Allocation Id	String	Yes	eip-2zeerraiwb 7ujxxxxxxxx	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.
InstanceRe gionId	String	No	cn-hangzhou	The ID of the region to which the associated instance belongs.
InstanceTy pe	String	No	EcsInstance	The type of the cloud product instance to associate. Valid values: Nat|SlbInstance| EcsInstance|NetworkInterface.
Mode	String	No	NAT	The mode of associating. Valid values: NAT | MULTI_BINDED.
PrivateIpA ddress	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	C0FD0EED-F90D -4479-803D- DD62335357E5	The ID of the request.

Examples

Request example

```
 http ( s ):// vpc . aliyuncs . com /?  Action = AssociateE
 ipAddress
& Allocation  Id = eip – 2zeerraiwb  7ujxxxxxxx  x
& InstanceId = i – 2zebb08phy  czxxxxxxxx
&< CommonPara  meters >
```

Response example

` XML `**format**

```
< AssociateE  ipAddressR  esponse >
  < RequestId > 0ED8D006 – F706 – 4D23 – 88ED – E11ED28DCA  C0 </
 RequestId >
</ AssociateE  ipAddressR  esponse >
```

` JSON `**format**

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

Error codes

HTTP status code	Error code	Error message	Description
400	InvalidAss ociation. 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	InvalidPar ameter. 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.

HTTP status code	Error code	Error message	Description
400	IncorrectE ipStatus	Current elastic IP status does not support this operation	The current status of the specified EIP address does not support this operation.
404	InvalidInstanId. NotFound	Specified instance does not exist.	The specified instance does not exist.
400	IncorrectI nstanceStatus	Current instance status does not support this operation.	The current instance status does not support this operation.
400	InvalidIns tanceType. ValueNotSu pported	The specified value of InstanceType is not supported.	The value of the InstanceType parameter is invalid.
400	IncorrectH aVipStatus	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	InvalidPar ameter	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	Forbbiden	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	InvalidBin dingStatus	The eip binding status invalid.	The associating status of the EIP is invalid.
400	BIND_INSTA NCE_HAVE_P ORTMAP_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_INSTA NCE_OWENER _ERROR	Cannot operate the eip.	You cannot operate this EIP.

HTTP status code	Error code	Error message	Description
404	InvalidAll ocationId. NotFound	Specified allocation ID is not found	The specified public IP address does not exist.
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 EIP.

Debug

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

Request parameters

Parameter	Type	Required ?	Example value	Description
Action	String	Yes	ModifyEipA ddressAttr ibute	The value of this action. Value: `ModifyEipA  ddressAttr  ibute`
Allocation Id	String	Yes	eip-2zeerraiwb 7uj6i0d0fo3	The ID of the EIP.
RegionId	String	Yes	cn-hangzhou	The ID of the region where the VPC that the route table belongs to is located.
Bandwidth	String	No	100	The peak bandwidth of the EIP . Unit: Mbps.

Parameter	Type	Required?	Example value	Description
Description	String	No	Description	The description of the EIP. The description must be 2 to 256 characters in length. It must start with a letter but cannot start with `http ://` or `https ://`.
Name	String	No	Test123	The name of the EIP. The name must be 2 to 128 characters in length and can contain letters, numbers, periods (.), underscores (_), or hyphens (-). The name must start with a letter. It cannot start with `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 = ModifyEipA
ddressAttr  ibute
    & Allocation  Id = eip - 25877c70xx  xxxxxx
    & Name = eip1
    &< CommonPara  meters >
```

Response example

· XML format

```
< ModifyEipA  ddressAttr  ibuteRespo  nse >
      < RequestId > 0ED8D006 – F706 – 4D23 – 88ED – E11ED28DCA  C0
  </ RequestId >
      </ ModifyEipA  ddressAttr  ibuteRespo  nse >
```

· JSON format

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

Error codes

HTTP status code	Error code	Error message	Description
400	Insufficie ntBalance.Eip	Your account does not have enough balance.	Your account does not have a sufficient balance . Recharge your account first.
404	InvalidAll ocationId. NotFound	Specified allocation ID is not found	The specified public IP address does not exist.
400	InvalidPar ameter	Specified value of " Bandwidth" is not supported.	The specified bandwidth value is invalid.
500	InternalError	The request processing has failed due to some unknown error.	An error occurred while the request was being processed.
400	IncorrectE ipStatus	Current elastic IP status does not support this operation.	The current status of the specified EIP address does not support this operation.
404	InvalidAll ocationId. NotFound	Specified allocation ID is not found..	The specified public IP address does not exist.
400	InvalidPar ameter	The parameter is invalid.	The specified parameter value is invalid.

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.

See common error codes

4.4 DescribeEipAddresses

Queries EIPs in a region.

Debug

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

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	DescribeEi pAddresses	The name of this action. Value: `DescribeEi pAddresses`
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the EIP belongs. To query the region ID, call `DescribeRegions`.
Allocation Id	String	No	eip-2zeerraiwb 7ujxxxxxxxx	The ID of the EIP.
Associated InstanceId	String	No	i-2zebb08phy cxxxxxxxx	The ID of the cloud resource to which the EIP is attached.

Parameter	Type	Required?	Example value	Description
Associated InstanceType	String	No	EcsInstance	The cloud resource to which the EIP is bound. Valid values: · `EcsInstanc e` (default): an ECS instance of the VPC network · `SlbInstanc e` : an SLB instance of the VPC network · `Nat` : NAT Gateway · `HaVip` : HAVIP instance Each ECS and SLB instance can be attached to only one EIP. However, a NAT Gateway can be attached to multiple EIPs.
ChargeType	String	No	PostPaid	The billing method of the EIP. · PostPaid: Pay-As-You-Go. · PrePaid: Subscription.
EipAddress	String	No	116.xx.xx.28	The IP address of the EIP. After it is specified, you can view the information related to the EIP.
Filter . 1 . Key	String	No	Filter.1.Name	The filter condition to use.
Filter . 1 . Value	String	No	value1	The value of the corresponding filter condition.
Filter . 2 . Key	String	No	Filter.2. Description	The filter condition to use.
Filter . 2 . Value	String	No	value2	The value of the corresponding filter condition.

Parameter	Type	Required?	Example value	Description
ISP	String	No	BGP	The service provider. In most cases, BGP data centers are used.
IncludeReservationData	Boolean	No	true	Indicates whether order data that has not taken effect is included. Default value: false.
LockReason	String	No	financial	The locking type. · Financial: locked because the bill is overdue. · Security: locked for security protection.
PageNumber	Integer	No	10	The number of pages to return. Default value: `1` .
PageSize	Integer	No	10	The number of rows per page. Maximum value: `50` . Default value: `10` .
ResourceGroupId	String	No	rg-acfmxazb4p xxxxxxxx	The ID of the resource group.
Status	String	No	Available	The status of the EIP. Valid values: · `Associatin g` : being attached · `Unassociat ing` : being detached · `InUse` : attached · `Available` : available

Response parameters

Parameter	Type	Example value	Description
EipAddresses	N/A	N/A	A list of EIPs.
└Allocation Id	String	eip-2zeerraiwb 7ujxxxxxxxx	The ID of the EIP.
└Allocation Time	String	2019-04-23T01:37 :38Z	The time at which the EIP was created.
└AvailableR egions	N/A	cn-hangzhou	The ID of the region.
└Bandwidth	String	5	The peak bandwidth in Mbps of the EIP.
└ BandwidthP ackageId	String	cbwp-bp1ego3i4j 07cxxxxxxxx	The ID of the Internet Shared Bandwidth to which the EIP is added.
└ BandwidthP ackageType	String	CommonBand widthPackage	The type of the Internet Shared Bandwidth.
└ ChargeType	String	PayByTraffic	The billing method of the EIP.
└Descritpio n	String	Description	The description of the EIP.
└ EipBandwid th	String	101	The bandwidth of the EIP before it is added to or removed from Internet Shared Bandwidth
└ ExpiredTime	String	2019-04-29T02:37 :38Z	The expiration time according to ISO8601 standard. UTC time must be used. Format: YYYY-MM-DDThh :mmZ.
└ HDMonitorS tatus	String	false	Indicates whether the EIP has enabled second-level monitoring.

Parameter	Type	Example value	Description
└ HasReservationData	String	wweayhddrhht	The value is true only if the IncludeReservationData parameter is true and there is order data that has not taken effect.
└ISP	String	BGP	The service provider. Usually, BGP data centers are used.
└InstanceId	String	vpc-bp15zckdt37xxxxxxxx	The ID of the instance to which the EIP is attached.
└InstanceRegionId	String	cn-hangzhou	The ID of the region to which the attached resource belongs.
└InstanceType	String	EcsInstance	The type of the attached instance.
└InternetChargeType	String	PayByBandwidth	The billing method of the EIP.
└IpAddress	String	101.xx.xx.36	The IP address of the EIP.
└Name	String	EIP	The name of the EIP.
└OperationLocks	N/A	financial	The reason that the EIP is locked. Valid values: · financial: locked because the bill is overdue · security: locked for security protection
└ LockReason	String	financial	The reason that the EIP is locked. Valid values: financial: locked because the bill is overdue security: locked for security protection

Parameter	Type	Example value	Description
└RegionId	String	cn-hangzhou	The ID of the region to which the EIP belongs.
└ReservationActiveTime	String	2019-03-11T16:00:00Z	The time at which the renewal takes effect.
└ReservationBandwidth	String	12	The renewal bandwidth.
└ReservationInternetChargeType	String	PayByBandwidth	The payment type of renewal.
└ReservationOrderType	String	RENEWCHANGE	The type of the renewal order. · RENEWCHANGE: renewal change · TEMP_UPGRADE: temporary upgrade · UPGRADE: upgrade
└ResourceGroupId	String	rg-acfmxazxxxxxxxx	The ID of the resource group.
└Status	String	Associating	The status of the EIP. · Associating: attaching · Unassociating: detaching · InUse: attached · Available: available
TotalCount	Integer	10	The number of queried entries.
PageNumber	Integer	10	The current page number.
PageSize	Integer	10	The number of entries per page.
RequestId	String	4EC47282-1B74-4534-BD0E-403F3EE64CAF	The ID of the request.

Examples

Request example

```
https :// vpc . aliyuncs . com /? Action = DescribeEi  pAddresses
& RegionId = cn – hangzhou
& CommonPara  meters
```

Response example

· **XML format**

```
< DescribeEi  pAddresses  Response >
  < RequestId > 7EEF2D6B – D207 – 4197 – AE37 – 01279C8887  57 </
 RequestId >
  < PageNumber > 1 </ PageNumber >
  < EipAddress  es >
    < EipAddress >
      < ChargeType > PostPaid </ ChargeType >
      < Allocation  Time > 2018 – 01 – 15T11 : 17 : 30Z </
 Allocation  Time >
      < ResourceGr  oupId > rg – acfmxazxxx  xxxxxx </ ResourceGr
 oupId >
      < InstanceId />
      < Descriptio  n />
      < IpAddress > 59 . 110 . xx . xx </ IpAddress >
      < Allocation  Id > eip – 2ze88m67qx  5zxxxxx </ Allocation  Id
 >
      < InternetCh  argeType > PayByTraff  ic </ InternetCh
 argeType >
      < InstanceTy  pe />
      < Name />
      < Status > Available </ Status >
      < BandwidthP  ackageId />
      < InstanceRe  gionId />
      < BandwidthP  ackageType />
      < RegionId > cn – beijing </ RegionId >
      < OperationL  ocks />
      < ExpiredTim  e />
      < AvailableR  egions >
        < AvailableR  egion > cn – beijing </ AvailableR  egion >
      </ AvailableR  egions >
      < Bandwidth > 1 </ Bandwidth >
    </ EipAddress >
  </ EipAddress  es >
  < TotalCount > 1 </ TotalCount >
  < PageSize > 10 </ PageSize >
</ DescribeEi  pAddresses  Response >
```

`JSON` **format**

```
{
 " DescribeEi  pAddresses  Response ":{
  " PageNumber ":" 1 ",
  " EipAddress  es ":{
   " EipAddress ":{
    " ChargeType ":" PostPaid ",
    " Status ":" Available ",
    " RegionId ":" cn – beijing ",
```

```
      " ResourceGr  oupId ":" rg – acfmxazxxx  xxxxx ",
      " Allocation  Time ":" 2018 – 01 – 15T11 : 17 : 30Z ",
      " IpAddress ":" 59 . 110 . xx . xx ",
      " Allocation  Id ":" eip – 2ze88m67qx  5zxxxxx ",
      " AvailableR  egions ":{
       " AvailableR  egion ":" cn – beijing "
      },
      " InternetCh  argeType ":" PayByTraff  ic ",
      " Bandwidth ":" 1 "
    }
   },
   " TotalCount ":" 1 ",
   " PageSize ":" 10 ",
   " RequestId ":" 7EEF2D6B – D207 – 4197 – AE37 – 01279C8887  57 "
  }
 }
```

Error codes

HTTP status code	Error code	Error message	Description
404	Forbidden. RegionNotFound	Specified region is not found during access authentication.	The specified region does not exist.
404	InvalidFilterKey. NotFound		The specified key in the key/value pair of the filter is invalid.
404	InvalidFil terValue		The specified value in the key/value pair of the filter is invalid.
404	InvalidLoc kReason. NotFound	The specified LockReason is not found	The reason that the EIP is locked was not found.
400	InvalidIAs sociatedIn stanceType. ValueNotSu pported	The specified value of AssociatedInstanceType is not supported.	The specified Associated InstanceType value is invalid.
400	InvalidCha rgeType. ValueNotSu pported	The specified ChargeType is not supported.	This billing method is not supported.

See common error codes

4.5 UnassociateEipAddress

Detaches an EIP from a cloud resource.

Debug

By using **API Explorer**, you can easily debug APIs, automatically generate SDK code examples, and quickly search for APIs.

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	Unassociat eEipAddress	The name of this action. Value: `Unassociat eEipAddres s`
Allocation Id	String	Yes	eip-2zeerraiwb 7uj6i0d0fo3	The ID of the EIP.
InstanceId	String	Yes	i-12345678	The ID of the cloud resource.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the EIP belongs.
InstanceTy pe	String	No	EcsInstance	The type of the cloud resource. Valid values: · `EcsInstanc e` (default): a VPC ECS instance · `SlbInstanc e` : a VPC SLB instance · `Nat` : NAT Gateway · `HaVip` : HAVIP

Response parameters

Parameter	Type	Example value	Description
RequestId	String	220F3179-5238 -47F0-A0CA- 1272AA2BC41F	The ID of the request.

Examples

Request example

```
https :// vpc . aliyuncs . com /? Action = Unassociat  eEipAddres  s
& Allocation  Id = eip - 25877c70x
& InstanceId = i - 25skktcp4
&< CommonPara  meters >
```

Response example

· XML format

```
< Unassociat  eEipAddres  sResponse >
  < RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA  C0 </
 RequestId >
</ Unassociat  eEipAddres  sResponse >
```

· JSON format

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

Error codes

HTTP status code	Error code	Error message	Description
400	IncorrectE ipStatus	Current elastic IP status does not support this operation.	The current status of the specified EIP address does not support this operation.
400	InvalidIns tanceId. NotFound	Specified instance does not exist.	The specified instance does not exist.
400	IncorrectI nstanceStatus	The current status of instance does not support this operation.	The current instance status does not support this operation.

HTTP status code	Error code	Error message	Description
400	InvalidIns tanceType. ValueNotSu pported	The specified value of InstanceType is not supported.	The InstanceType value is invalid.
400	IncorrectH aVipStatus	This operation is denied because satus of the specified HaVip is neither Available nor InUse.	This operation cannot be performed because the HAVIP is in the Available or InUse state.
400	OperationDenied	Eip of default vpc not allow this operation	The EIP of the default VPC does not support this operation.
404	Forbidden. RegionNotFound	Specified region is not found during access authentication.	The specified region does not exist.
400	InvalidPar ameter	The specified parameter is not valid.	The specified parameter value is invalid.
400	Forbbiden	The eip instance owener error	You are not authorized to call this EIP.
400	InvalidBin dingStatus	The eip binding status invalid.	The attaching status of the EIP is invalid.

See common error codes

4.6 ReleaseEipAddress

Releases an Elastic IP Address (EIP).

> Note:
>
> Only EIPs in the Available state can be released.

Debug

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

Request parameters

Parameter	Type	Required?	Example value	Description
Action	String	Yes	ReleaseEip Address	The name of this action. Value: `ReleaseEip  Address`
Allocation Id	String	Yes	eip-2zeerraiwb 7uj6i0d0fo3	The ID of the EIP.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the EIP belongs.

Response parameters

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

Examples

Request example

```
https :// vpc . aliyuncs . com /? Action = ReleaseEip  Address
& Allocation  Id = eip – 25877c70x
&< CommonPara  meters >
```

Response example

· XML format

```
<<? xml   version =" 1 . 0 "  encoding =" UTF – 8 " ?>
< ReleaseEip  AddressRes  ponse >
    < RequestId > 748C38F6 – 9A3D – 482E – 83FB – DB6C39C68A  EA </
 RequestId >
</ ReleaseEip  AddressRes  ponse >
```

· JSON format

```
{
  " RequestId ":" 748C38F6 – 9A3D – 482E – 83FB – DB6C39C68A  EA "
```

```
        }
```

Error codes

HTTP status code	Error code	Error message	Description
404	InvalidAll ocationId. NotFound	Specified allocation ID is not found	The specified public IP address does not exist.
400	IncorrectE ipStatus	Current elastic IP status does not support this operation.	The current status of the specified EIP address does not support this operation.
500	InternalError	The request processing has failed due to some unknown error.	An error occurred while the request was being processed.
404	Forbidden. RegionNotFound	Specified region is not found during access authentication.	The specified region does not exist.
400	Forbidden. ChargeType IsPrepaid	It's forbidden to release a prepaid EIP	The subscription EIP addresses cannot be released.
400	Forbbiden	The eip instance owener error	You need to be authorized to use the specified EIP. Check that you have the appropriate permissions and try again.
400	TaskConflict .AssociateG lobalAccel erationInstance	Operate too frequent.	The server cannot process this many requests. Please try again later.

See common error codes

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	C0FD0EED-F90D-4479-803D-DD62335357E5	The ID of the request.

Examples

Request example

```
http ( s ):// vpc . aliyuncs . com /?  Action = DescribeEi
pGatewayIn   fo
& InstanceId = eni - bp1d66qjxb   3qoin3 ****
& RegionId = cn - zhangjiako  u
&< CommonPara   meters >
```

Response examples

`XML` format

```
< DescribeEi  pGatewayIn   foResponse >
  < Message > successful </ Message >
  < RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA  C0 </
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 >
</ DescribeEi  pGatewayIn   foResponse >
```

`JSON` format

```
{
 " Message ":" successful ",
 " RequestId ":" 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA  C0 ",
 " 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.