

Alibaba Cloud

Elastic IP Address
API Reference

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Document conventions

Style	Description	Example
 Danger	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.
 Warning	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.
 Notice	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.
 Note	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.
<i>Italic</i>	Italic formatting is used for parameters and variables.	<code>bae log list --instanceid</code> <i>Instance_ID</i>
[] or [a b]	This format is used for an optional value, where only one item can be selected.	<code>ipconfig [-all -t]</code>
{ } or {a b}	This format is used for a required value, where only one item can be selected.	<code>switch {active stand}</code>

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1. List of operations by function

The following table lists the API operations available for use in Elastic IP Address (EIP). The endpoint of the EIP API is `vpc.aliyuncs.com`. For more information, see the topics related to EIP in the API reference of Virtual Private Cloud (VPC).

API	Description
<code>AllocateEipAddress</code>	Applies for an EIP.
<code>AllocateEipAddressPro</code>	Applies for a specified EIP.
<code>DescribeEipAddresses</code>	Queries the EIPs in a specified region.
<code>ModifyEipAddressAttribute</code>	Modifies the name, description, and maximum bandwidth value of a specified pay-as-you-go EIP.
<code>ReleaseEipAddress</code>	Releases a specified EIP.
<code>AllocateEipSegmentAddress</code>	Applies for a group of contiguous EIPs.
<code>DescribeEipSegment</code>	Queries groups of contiguous EIPs.
<code>ReleaseEipSegmentAddress</code>	Releases a group of contiguous EIPs.
<code>AssociateEipAddress</code>	Associates an EIP with an instance in the same region.
<code>UnassociateEipAddress</code>	Disassociates an EIP from an instance.
<code>MoveResourceGroup</code>	Changes the resource group to which a specified cloud resource belongs.
<code>ListIpGeolocations</code>	Queries the geographical locations of IP addresses.
<code>DescribeEipGatewayInfo</code>	Queries the gateway and subnet mask information about a specified EIP.
<code>DescribeEipMonitorData</code>	Queries monitoring information about a specified EIP.
<code>DescribeHighDefinitionMonitorLogAttribute</code>	Queries fine-grained monitoring configurations of an EIP.

2. Call API operations

The Elastic IP Address (EIP) API and Virtual Private Cloud (VPC) API share the same endpoint. To call the EIP API, you must send HTTP or HTTPS GET requests to the endpoint of the EIP API. You must add the request parameters that correspond to the API operation being called. After you call the API operation, the system returns a response. Requests and responses are encoded in UTF-8.

Request structure

EIP API operations use the RPC protocol. You can call EIP API operations by sending HTTP or HTTPS GET requests.

A request uses the following syntax:

```
http(s)://Endpoint/?Action=xx&Parameters
```

where:

- **Endpoint:** the endpoint of the EIP API. The endpoint is `vpc.aliyuncs.com`.
- **Action:** the name of the operation being performed. For example, to create an EIP, you must set the Action parameter to `AllocateEipAddress`.
- **Version:** the version of the API that you want to call. The current EIP API version is `2016-04-28`.
- **Parameters:** the request parameters for the operation. Separate multiple parameters with ampersands (&).

Request parameters include both common request parameters and API operation-specific parameters. Common parameters include information such as the API version number and authentication information. For more information, see [Common parameters](#).

The following example demonstrates how to call the `AllocateEipAddress` operation to apply for an EIP:

 **Note** The following code has been edited to improve 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 ensure the security of your account, we recommend that you call APIs as a Resource Access Management (RAM) user. To call the EIP API as a RAM user, you must create a permission policy that contains the required permissions and attach the policy to the RAM user.

For more information about the EIP resources and API operations that can be authorized to a RAM user, see [RAM user authorization](#).

Signature:

You must sign all API requests to ensure security whether the requests use HTTP or HTTPS. Alibaba Cloud uses the request signature to verify the identity of the API caller.

EIP implements symmetric encryption with an AccessKey pair to verify the identity of the request sender. An AccessKey pair is an identity credential that is issued to Alibaba Cloud accounts and RAM users. Similar to a pair of username and password, an AccessKey pair consists of an AccessKey ID and an AccessKey secret. The AccessKey ID is used to verify the identity of the user, while the AccessKey secret is used to encrypt and verify the signature string. You must keep your AccessKey secret strictly confidential.

You must add the signature to a RPC API request in the following format:

```
https://endpoint/?SignatureVersion=1.0&SignatureMethod=HMAC-SHA1&Signature=XXXX%3D&SignatureNonce=3ee8c1b8-83d3-44af-a94f-4e0axxxxxxxxx
```

Take `AllocateEipAddress` as an example. The AccessKey ID is `testid` and the AccessKey secret is `testsecret`. The URL before the request is signed is:

```
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=2016-04-28
&SignatureVersion=1.0
```

Perform the following operations to calculate the signature:

1. Use the request parameters to create a string-to-sign.

```
GET%2F&AccessKeyId%3Dtestid&Action%3DAllocateEipAddress&Format%3DXML&SignatureMethod%3DHMAC-SHA1&SignatureNonce%3D3ee8c1b8-83d3-44af-a94f-4e0axxxxxxxxx&SignatureVersion%3D1.0&TimeStamp%3D2016-02-83T12%253A46%253A24Z&Version%3D2016-04-28
```

2. Calculate the HMAC value of the string to be signed.

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

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

3. Add the signature string to the request:

```
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=2016-04-28
&SignatureVersion=1.0
&Signature=CT9X0VtwR86fNWS*****juE=
```

3. Common parameters

Common parameters include common request parameters and common response parameters.

Common request parameters

Common request parameters must be included in all VPC API requests. The following table describes the common request parameters.

Parameter	Type	Required	Description
Format	String	No	The format in which to return the response. Valid values: <i>JSON and XML</i> . Default value: <i>JSON</i> .
Version	String	Yes	The version number of the API. Format: <code>YYYY-MM-DD</code> . Set the value to <i>2016-04-28</i> .
AccessKeyId	String	Yes	The AccessKey ID provided to you by Alibaba Cloud.
Signature	String	Yes	The signature string of the current request.
SignatureMethod	String	Yes	The encryption method of the signature string. Set the value to <i>HMAC-SHA1</i> .
Timestamp	String	Yes	The timestamp of the request. Specify the time in the ISO 8601 standard in the <code>yyyy-MM-ddTHH:mm:ssZ</code> format. The time must be in UTC. For example, to specify 20:00:00 (UTC+8) on January 10, 2013, set the parameter to <i>2013-01-10T12:00:00Z</i> .
SignatureVersion	String	Yes	The version of the signature encryption algorithm. Set the value to <i>1.0</i> .
SignatureNonce	String	Yes	A unique, random number that is used to prevent replay attacks. You must use different random numbers for different requests.

Common response parameters

API responses use the HTTP response format where a 2xx status code indicates a successful call and a 4xx or 5xx status code indicates a failed call. Responses can be returned in the JSON or XML format. The default response format is JSON. You can specify the response format when you call an operation.

Every response returns a unique RequestId regardless of whether the call is successful.

- XML format

```
<?xml version="1.0" encoding="utf-8"?>
  <!--Result Root Node-->
  <Interface Name+Response>
    <!--Return Request Tag-->
    <RequestId>4C467B38-3910-447D-87BC-AC049166F216</RequestId>
    <!--Return Result Data-->
  </Interface Name+Response>
```

- JSON format

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

4. Elastic IP Address

4.1. AllocateEipAddress

Applies for an elastic IP address (EIP).

Usage notes

Before you call this operation, make sure that you understand the billing methods and pricing of EIPs. For more information, see [Billing](#).

After you call this operation, the system randomly allocates an EIP that is in the **Available** state in the specified region. EIPs support only the following transport layer protocols: Internet Control Message Protocol (ICMP), Transmission Control Protocol (TCP), and User Datagram Protocol (UDP). Internet Group Management Protocol (IGMP) and Stream Control Transmission Protocol (SCTP) are not supported.

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	AllocateEipAddress	The operation that you want to perform. Set the value to AllocateEipAddress .
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the EIP belongs. You can call the DescribeRegions operation to query the most recent region list.
Bandwidth	String	No	5	The maximum bandwidth of the EIP. Unit: Mbit/s. <ul style="list-style-type: none"> When InstanceChargeType is set to PostPaid and InternetChargeType is set to PayByBandwidth, valid values for Bandwidth are 1 to 500. When InstanceChargeType is set to PostPaid and InternetChargeType is set to PayByTraffic, valid values for Bandwidth are 1 to 200. When InstanceChargeType is set to PrePaid, valid values for Bandwidth are 1 to 1000. Default value: 5. Unit: Mbit/s.

Parameter	Type	Required	Example	Description
Period	Integer	No	1	<p>The subscription duration.</p> <p>When PricingCycle is set to Month, set Period to a value from 1 to 9.</p> <p>When PricingCycle is set to Year, set Period to a value from 1 to 5.</p> <p>This parameter is required when InstanceChargeType is set to PrePaid. This parameter is optional when InstanceChargeType is set to PostPaid.</p>
ISP	String	No	BGP	<p>The line type. You can set this parameter only when you create a pay-as-you-go EIP. Valid values:</p> <ul style="list-style-type: none"> BGP: BGP (Multi-ISP) lines <p>Up to 89 high-quality BGP lines are available worldwide. Direct connections with multiple Internet service providers (ISPs), including China Telecom, China Unicom, China Mobile, China Mobile Tietong, China Netcom, CERNET, China Broadcast Network, Dr. Peng Group, and Founder, can be established in all regions in mainland China.</p> BGP_PRO: BGP (Multi-ISP) Pro lines <p>BGP (Multi-ISP) Pro lines optimize data transmission to mainland China and improve connection quality for international services. Compared with BGP (Multi-ISP), when BGP (Multi-ISP) Pro lines provide services to users in mainland China (excluding data centers), cross-border connections are established by using mainland China ISP services. This reduces network latency.</p> <p>BGP (Multi-ISP) lines are supported in all regions. BGP (Multi-ISP) Pro lines are supported only in the China (Hong Kong) region.</p> <div style="background-color: #e1f5fe; padding: 10px; border: 1px solid #cfcfcf;"> <p> Note If your Alibaba Cloud account is included in the BGP (single line) whitelist, you can set the <code>Isp</code> parameter to <code>ChinaTelecom</code>, <code>ChinaUnicom</code>, or <code>ChinaMobile</code>. If your workloads are deployed in China East 1 Finance, this parameter is required and you must set the value to <code>BGP_FinanceCloud</code>.</p> </div>

Parameter	Type	Required	Example	Description
ActivityId	Long	No	123456	The promotion code. Ignore this parameter.
Netmode	String	No	public	The network type. Set the value to public , which specifies the Internet.
AutoPay	Boolean	No	false	<p>Specifies whether to enable automatic payment. Valid values:</p> <ul style="list-style-type: none"> • false (default): disables automatic payment. If you select this option, you must go to the Order Center to complete the payment after an order is generated. • true: enables automatic payment. Payments are automatically completed. <p>When InstanceChargeType is set to PrePaid, this parameter is required. When InstanceChargeType is set to PostPaid, this parameter is not required.</p>
PricingCycle	String	No	Month	<p>The billing cycle of the subscription EIP. Valid values:</p> <ul style="list-style-type: none"> • Month (default): The EIP is billed on a monthly basis. • Year: The EIP is billed on an annual basis. <p>When InstanceChargeType is set to PrePaid, this parameter is required. When InstanceChargeType is set to PostPaid, this parameter is not required.</p>
InstanceChargeType	String	No	PostPaid	<p>The billing method of the EIP. Valid values:</p> <ul style="list-style-type: none"> • PrePaid: subscription • PostPaid (default): pay-as-you-go <p>When InstanceChargeType is set to PrePaid, set InternetChargeType to PayByBandwidth. When InstanceChargeType is set to PostPaid, set InternetChargeType to PayByBandwidth or PayByTraffic.</p>

Parameter	Type	Required	Example	Description
InternetChargeType	String	No	PayByTraffic	<p>The metering method of the EIP. Valid values:</p> <ul style="list-style-type: none"> • PayByBandwidth (default): pay-by-bandwidth • PayByTraffic: pay-by-data-transfer <p>When InstanceChargeType is set to PrePaid, you must set InternetChargeType to PayByBandwidth.</p> <p>When InstanceChargeType is set to PostPaid, set InternetChargeType to PayByBandwidth or PayByTraffic.</p>
ResourceGroupId	String	No	rg-acfmxazffggds****	The ID of the resource group.
ClientToken	String	No	0c593ea1-3bea-11e9-b96b-88e9fe637760	<p>The client token that is used to ensure the idempotence of the request.</p> <p>You can use the client to generate the value, but you must make sure that the value is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.</p> <div style="border: 1px solid #ccc; background-color: #e6f2ff; padding: 5px; margin-top: 10px;"> <p> Note If you do not set this parameter, the system automatically uses RequestId as ClientToken. RequestId may be different for each API request.</p> </div>
Name	String	No	EIP1	<p>The name of the EIP.</p> <p>The name must be 1 to 128 characters in length, and can contain digits, periods (.), underscores (_), and hyphens (-). The name must start with a letter but cannot start with <code>http://</code> or <code>https://</code>.</p> <div style="border: 1px solid #ccc; background-color: #e6f2ff; padding: 5px; margin-top: 10px;"> <p> Note This parameter is unavailable when you create a subscription EIP.</p> </div>

Parameter	Type	Required	Example	Description
Description	String	No	test	<p>The description of the EIP.</p> <p>The description must be 2 to 256 characters in length. It must start with a letter, but cannot start with <code>http://</code> or <code>https://</code>.</p> <div style="background-color: #e0f2f7; padding: 5px; border: 1px solid #ccc;"> <p> Note This parameter is unavailable when you create a subscription EIP.</p> </div>
SecurityProtectionTypes.N	String	No	AntiDDoS_Enhanced	<p>The edition of Anti-DDoS. Valid values of N: 1 to 10.</p> <ul style="list-style-type: none"> If you do not set this parameter, Basic Edition Anti-DDoS is used. If you set the value to AntiDDoS_Enhanced, Enhanced Edition Anti-DDoS is used.

Response parameters

Parameter	Type	Example	Description
RequestId	String	4EC47282-1B74-4534-BD0E-403F3EE64CAF	The ID of the request.
OrderId	Long	10	The order number. This parameter is returned only when InstanceChargeType is set to PrePaid .
ResourceGroupId	String	rg-acfmxazfdgdg****	The ID of the resource group.
EipAddress	String	192.0.XX.XX	The EIP that is allocated.
AllocationId	String	eip-25877c70gddh****	The ID of the EIP.

Examples

Sample requests

```

http(s)://[Endpoint]/?Action=AllocateEipAddress
&RegionId=cn-hangzhou
&Bandwidth=5
&Period=1
&ISP=BGP
&ActivityId=123456
&Netmode=public
&AutoPay=false
&PricingCycle=Month
&InstanceChargeType=PostPaid
&InternetChargeType=PayByTraffic
&ResourceGroupId=rg-acfmxazffgds****
&ClientToken=0c593ea1-3bea-11e9-b96b-88e9fe637760
&Name=EIP1
&Description=test
&SecurityProtectionTypes=["AntiDDoS_Enhanced"]
&Common request parameters

```

Sample success responses

XML **format**

```

HTTP/1.1 200 OK
Content-Type:application/xml
<AllocateEipAddressResponse>
  <RequestId>4EC47282-1B74-4534-BD0E-403F3EE64CAF</RequestId>
  <OrderId>10</OrderId>
  <ResourceGroupId>rg-acfmxazfdgdg****</ResourceGroupId>
  <EipAddress>192.0.XX.XX</EipAddress>
  <AllocationId>eip-25877c70gddh****</AllocationId>
</AllocateEipAddressResponse>

```

JSON **format**

```

HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "4EC47282-1B74-4534-BD0E-403F3EE64CAF",
  "OrderId" : 10,
  "ResourceGroupId" : "rg-acfmxazfdgdg****",
  "EipAddress" : "192.0.XX.XX",
  "AllocationId" : "eip-25877c70gddh****"
}

```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidParameter	Specified value of "Bandwidth" is not valid.	The error message returned because the specified bandwidth value is invalid.
400	InsufficientBalance	Your account does not have enough balance.	The error message returned because your Alibaba Cloud account has an insufficient balance. Top up your Alibaba Cloud account and try again.

HttpCode	Error code	Error message	Description
400	QuotaExceeded.Eip	Elastic IP address quota exceeded.	The error message returned because the number of EIPs has reached the upper limit. We recommend that you use NAT gateways if you want to use more EIPs.
400	ReserveIpFail	Reserve eip failed.	The error message returned because the system failed to reserve the specified EIP.
400	InvalidRegion.NotSupport	The specified region does not support.	The error message returned because the operation is not supported in the specified region.
400	InvalidResourceGroupId	The specified ResourceGroupId does not exist.	The error message returned because the specified resource group ID is invalid.
400	ORDER.QUANTITY_INVALID	User quota has exceeded the limit.	The error message returned because the number of EIPs that you have created has reached the upper limit. Go to the Quota Management page to request a quota increase.
400	OrderError.EIP	The Account failed to create order.	The error message returned because the system failed to generate the order.
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you are unauthorized to perform this operation on the specified resource. Apply for the required permissions and try again.
409	OperationConflict	Request was denied due to conflict with a previous request.	The error message returned because your request is conflicting with another request. Try again later.

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

4.2. AllocateEipAddressPro

Requests a specified elastic IP address (EIP).

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	AllocateEipAddressPro	The operation that you want to perform. Set the value to <code>AllocateEipAddressPro</code> .

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-hangzhou	The ID of the region where you want to request a specified EIP. You can call the DescribeRegions operation to query the most recent region list.
IpAddress	String	No	192.0.XX.XX	The IP address of the EIP that you want to request. Set IpAddress or InstanceId . If you leave both parameters empty, the system randomly allocates an EIP.
InstanceId	String	No	eip-25877c70gddh****	The ID of the EIP. Set IpAddress or InstanceId . If you leave both parameters empty, the system randomly allocates an EIP.
Bandwidth	String	No	5	The maximum bandwidth of the specified EIP. Unit: Mbit/s. <ul style="list-style-type: none"> When InstanceChargeType is set to PostPaid and InternetChargeType is set to PayByBandwidth, valid values for Bandwidth are 1 to 500. When InstanceChargeType is set to PostPaid and InternetChargeType is set to PayByTraffic, valid values for Bandwidth are 1 to 200. When InstanceChargeType is set to PrePaid, valid values for Bandwidth are 1 to 1000. Default value: 5. Unit: Mbit/s.
Period	Integer	No	1	The subscription duration. <ul style="list-style-type: none"> If PricingCycle is set to Month, set Period to a value from 1 to 9. If PricingCycle is set to Year, set Period to a value from 1 to 3. When InstanceChargeType is set to PrePaid , this parameter is required. Ignore this parameter when InstanceChargeType is set to PostPaid .

Parameter	Type	Required	Example	Description
ISP	String	No	BGP	<p>The line type. Default value: BGP.</p> <ul style="list-style-type: none"> If you are allowed to use BGP (Single-ISP), valid values are ChinaTelecom, ChinaUnicom, and ChinaMobile. If your services are deployed in China East 1 Finance, this parameter is required and you must set the value to BGP_FinanceCloud.
Netmode	String	No	public	<p>The network type. Set the value to public, which specifies the Internet.</p>
AutoPay	Boolean	No	true	<p>Specifies whether to enable automatic payment. Valid values:</p> <ul style="list-style-type: none"> false: disables automatic payment. After an order is generated, you must go to the Order Center to complete the payment. true: enables automatic payment. Payments are automatically completed. <p>This parameter is required when InstanceChargeType is set to PrePaid. Ignore this parameter when InstanceChargeType is set to PostPaid.</p>
PricingCycle	String	No	Month	<p>The billing cycle of the subscription EIP. Valid values:</p> <ul style="list-style-type: none"> Month (default): The EIP is billed on a monthly basis. Year: The EIP is billed on an annual basis. <p>When InstanceChargeType is set to PrePaid, this parameter is required. When InstanceChargeType is set to PostPaid, this parameter is not required.</p>
InstanceChargeType	String	No	PostPaid	<p>The billing method of the specified EIP. Valid values:</p> <ul style="list-style-type: none"> PrePaid: subscription PostPaid (default): pay-as-you-go <p>When InstanceChargeType is set to PrePaid, you must set InternetChargeType to PayByBandwidth.</p> <p>When InstanceChargeType is set to PostPaid, you must set InternetChargeType to PayByBandwidth or PayByTraffic.</p>

Parameter	Type	Required	Example	Description
InternetChargeType	String	No	PayByBandwidth	<p>The metering method of the specified EIP. Valid values:</p> <ul style="list-style-type: none"> • PayByBandwidth (default): pay-by-bandwidth • PayByTraffic: pay-by-data-transfer <p>When InstanceChargeType is set to PrePaid, you must set InternetChargeType to PayByBandwidth.</p> <p>When InstanceChargeType is set to PostPaid, set InternetChargeType to PayByBandwidth or PayByTraffic.</p>
ResourceGroupId	String	No	rg-resourcegroup****	The ID of the resource group to which the EIP belongs.
ClientToken	String	No	0c593ea1-3bea-11e9-b96b-88e9fe6****	<p>The client token that is used to ensure the idempotence of the request.</p> <p>You can use the client to generate the value, but you must make sure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.</p> <div style="border: 1px solid #add8e6; padding: 5px; margin-top: 10px;"> <p> Note If you do not set this parameter, the system automatically uses RequestId as ClientToken. RequestId may be different for each API request.</p> </div>
SecurityProtectionTypes.N	String	No	AntiDDoS_Enhanced	<p>The edition of Anti-DDoS. Valid values of N: 1 to 10.</p> <ul style="list-style-type: none"> • If you do not set this parameter, Anti-DDoS Origin is used. • If you set the value to AntiDDoS_Enhanced, Anti-DDoS Pro/Premium is used. <p>You can set this parameter when InternetChargeType is set to PayBy95.</p> <div style="border: 1px solid #add8e6; padding: 5px; margin-top: 10px;"> <p> Note This parameter is available only on the Alibaba Cloud China site.</p> </div>

Response parameters

Parameter	Type	Example	Description
RequestId	String	4EC47282-1B74-4534-BD0E-403F3EE64CAF	The ID of the request.
OrderId	Long	20190000	The order number. This parameter is returned only when InstanceChargeType is set to PrePaid .
ResourceGroupId	String	rg-resourcegroup****	The ID of the resource group.
EipAddress	String	192.0.XX.XX	The IP address of the requested EIP.
AllocationId	String	eip-25877c70gddh****	The ID of the specified EIP.

Examples

Sample requests

```

http(s)://[Endpoint]/?Action=AllocateEipAddressPro
&RegionId=cn-hangzhou
&IpAddress=192.0.XX.XX
&InstanceId=eip-25877c70gddh****
&Bandwidth=5
&Period=1
&ISP=BGP
&Netmode=public
&AutoPay=true
&PricingCycle=Month
&InstanceChargeType=PostPaid
&InternetChargeType=PayByBandwidth
&ResourceGroupId=rg-resourcegroup****
&ClientToken=0c593eal-3bea-11e9-b96b-88e9fe6****
&SecurityProtectionTypes=["AntiDDoS_Enhanced"]
&Common request parameters

```

Sample success responses

XML format

```

HTTP/1.1 200 OK
Content-Type:application/xml
<AllocateEipAddressProResponse>
  <RequestId>4EC47282-1B74-4534-BD0E-403F3EE64CAF</RequestId>
  <OrderId>20190000</OrderId>
  <ResourceGroupId>rg-resourcegroup****</ResourceGroupId>
  <EipAddress>192.0.XX.XX</EipAddress>
  <AllocationId>eip-25877c70gddh****</AllocationId>
</AllocateEipAddressProResponse>

```

JSON format

```

HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "4EC47282-1B74-4534-BD0E-403F3EE64CAF",
  "OrderId" : 20190000,
  "ResourceGroupId" : "rg-resourcegroup****",
  "EipAddress" : "192.0.XX.XX",
  "AllocationId" : "eip-25877c70gddh****"
}

```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidParameter	Specified value of "Bandwidth" is not valid.	The error message returned because the specified bandwidth value is invalid.
400	InsufficientBalance	Your account does not have enough balance.	The error message returned because you do not have sufficient balance within your Alibaba Cloud account. Top up your Alibaba Cloud account and try again.
400	QuotaExceeded.Eip	Elastic IP address quota exceeded.	The error message returned because the number of EIPs has reached the upper limit. We recommend that you use NAT gateways if you want to use more EIPs.
400	ReserveIpFail	Reserve eip failed.	The error message returned because the system failed to reserve the specified EIP.
400	InvalidRegion.NotSupport	The specified region does not support.	The error message returned because the operation is not supported in the specified region.
400	InvalidResourceGroupId	The specified ResourceGroupId does not exist.	The error message returned because the specified resource group ID is invalid.
400	OperationFailed.AllocateUnfamiliarIp	The operation failed because only IP addresses used within the last seven days can be allocated.	The error message returned because you can call this operation to request EIPs that were used within the last seven days.
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you are unauthorized to perform this operation on the specified resource. Apply for the required permissions and try again.

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

4.3. DescribeEipAddresses

Queries elastic IP addresses (EIPs) in a specified region.

Usage notes

You can call this operation to query information about EIPs in a specified region, including maximum bandwidth, billing methods, and associated instances.

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	DescribeEipAddresses	The operation that you want to perform. Set the value to DescribeEipAddresses .
RegionId	String	Yes	cn-hangzhou	The region ID of the EIP. You can call the DescribeRegions operation to query the most recent region list.
IncludeReservationData	Boolean	No	true	Specifies whether to return information about pending orders. Valid values: <ul style="list-style-type: none"> false (default): does not return information about pending orders. true: returns information about pending orders.
Status	String	No	Available	The status of the EIP. Valid values: <ul style="list-style-type: none"> Associating: being associated Unassociating: being disassociated InUse: allocated Available: available
EipAddress	String	No	47.75.XX.XX	The IP address of the EIP that you want to query. You can enter up to 50 IP addresses of EIPs. Separate IP addresses with commas (,). <div style="background-color: #e0f2f7; padding: 5px; margin-top: 10px;"> <p> Note If you set both the EipAddress and AllocationId parameters, you can enter up to 50 IP addresses of EIPs in EipAddress, and enter up to 50 IDs of EIPs in AllocationId.</p> </div>

Parameter	Type	Required	Example	Description
AllocationId	String	No	eip-2zeerraiwb7ujxscd* ***	<p>The ID of the EIP that you want to query.</p> <p>You can enter up to 50 IDs of EIPs. Separate IDs with commas (,).</p> <div style="background-color: #e0f2f1; padding: 5px;"> <p> Note If you set both the <code>EipAddress</code> and <code>AllocationId</code> parameters, you can enter up to 50 IDs of EIPs in <code>AllocationId</code>, and enter up to 50 IP addresses of EIPs in <code>EipAddress</code>.</p> </div>
SegmentInstanceId	String	No	eipsg-t4nr90yik5oy38xdy* ***	The ID of the contiguous EIP group.
ResourceGroupId	String	No	rg-acfmxazb4pcdvf*** *	The ID of the resource group to which the EIP belongs.
PageNumber	Integer	No	10	The number of the page to return. Default value: 1.
PageSize	Integer	No	10	The number of entries to return on each page. Maximum value: 100. Default value: 10.

Parameter	Type	Required	Example	Description
ISP	String	No	BGP	<p>The line type. Valid values:</p> <ul style="list-style-type: none"> • BGP: BGP (Multi-ISP). Up to 89 high-quality BGP lines are available worldwide. Direct connections with multiple Internet service providers (ISPs), including China Telecom, China Unicom, China Mobile, China Mobile Tietong, China Netcom, CERNET, China Broadcast Network, Dr. Peng Group, and Founder, can be established in all regions in the Chinese mainland. • BGP_PRO: BGP (Multi-ISP) Pro. BGP (Multi-ISP) Pro lines optimize data transmission to the Chinese mainland and improve connection quality for international services. Compared with BGP (Multi-ISP), when BGP (Multi-ISP) Pro lines provide services to users in the Chinese mainland (excluding data centers), cross-border connections are established by using ISP services in the Chinese mainland. This reduces network latency. <p>BGP (Multi-ISP) lines are supported in all regions. BGP (Multi-ISP) Pro lines are supported only in the China (Hong Kong) region.</p> <div style="border: 1px solid #ccc; background-color: #e6f2ff; padding: 5px; margin-top: 10px;"> <p> Note If your account is included in the BGP (single ISP) whitelist, you can set the ISP parameter to ChinaTelecom, ChinaUnicom, or ChinaMobile. If your workloads are deployed in China East 1 Finance, this parameter is required and you must set the value to BGP_FinanceCloud.</p> </div>
Filter.1.Key	String	No	CreationStartTime	The filter key used to query resources. Set the value to CreationStartTime , which is the time when the system started to create the resource.
Filter.2.Key	String	No	CreationEndTime	The filter key used to query resources. Set the value to CreationEndTime , which is the time when the system completed creating the resource.

Parameter	Type	Required	Example	Description
Filter.1.Value	String	No	2021-05-22T09:12:00Z	The filter value used to query resources. Specify the time in <code>YYYY-MM-DDThh:mm:ssZ</code> format. The time must be in UTC.
Filter.2.Value	String	No	2021-05-22T09:15:00Z	The filter value used to query resources. Specify the time in <code>YYYY-MM-DDThh:mm:ssZ</code> format. The time must be in UTC.
LockReason	String	No	financial	The reason why the EIP is locked. Valid values: <ul style="list-style-type: none"> financial: The EIP is locked due to overdue payments. security: The EIP is locked for security reasons.
AssociatedInstanceType	String	No	EcsInstance	The type of the cloud resource with which you want to associate the EIP. Valid values: <ul style="list-style-type: none"> EcsInstance (default): an Elastic Compute Service (ECS) instance in a virtual private cloud (VPC) SlbInstance: a Server Load Balancer (SLB) instance in a VPC Nat: a NAT gateway HaVip: a high-availability virtual IP address (HAVIP) NetworkInterface: a secondary elastic network interface (ENI) <div style="border: 1px solid #add8e6; padding: 5px; margin-top: 10px;"> <p> Note You can associate only one EIP with each ECS instance, SLB instance, or HAVIP. You can associate multiple EIPs with each NAT gateway. The number of EIPs that you can associate with a secondary ENI depends on the association mode. For more information, see EIP overview.</p> </div>
AssociatedInstanceId	String	No	i-2zebb08phyccdvf**	The ID of the cloud resource.
ChargeType	String	No	PostPaid	The billing method of the EIP. Set the value to PostPaid (pay-as-you-go).

Parameter	Type	Required	Example	Description
DryRun	Boolean	No	false	<p>Specifies whether to only check the request without performing the operation. Valid values:</p> <ul style="list-style-type: none"> true: checks the request without querying EIPs. The system checks the required parameters, request syntax, and limits. If the request fails the check, an error message is returned. If the request passes the check, the <code>DryRunOperation</code> error code is returned. false (default): sends the API request. If the request passes the check, a 2xx HTTP status code is returned and the operation is performed.
EipName	String	No	EIP-01	<p>The name of the EIP.</p> <p>The name must be 1 to 128 characters in length, and can contain letters, digits, underscores (<code>_</code>), and hyphens (<code>-</code>). The name must start with a letter.</p>
SecurityProtectionEnabled	Boolean	No	false	<p>Specifies whether to enable Anti-DDoS Pro/Premium. Valid values:</p> <ul style="list-style-type: none"> false (default): disables Anti-DDoS Pro/Premium. true: enables Anti-DDoS Pro/Premium.

Response parameters

Parameter	Type	Example	Description
PageSize	Integer	10	The number of entries returned per page.
RequestId	String	4EC47282-1B74-4534-BD0E-403F3EE64CAF	The ID of the request.
PageNumber	Integer	10	The number of the returned page.
TotalCount	Integer	10	The number of entries returned.
EipAddresses	Array of EipAddress		The details about the EIPs.
EipAddress			
ReservationActiveTime	String	2021-05-23T16:00:00Z	The time when the renewal takes effect. The time is displayed in <code>YYYY-MM-DDThh:mm:ssZ</code> format.

Parameter	Type	Example	Description
Status	String	Available	The status of the EIP. Valid values: <ul style="list-style-type: none"> • Associating: being associated • Unassociating: being disassociated • InUse: allocated • Available: available
ReservationOrderType	String	RENEWCHANGE	The type of the renewal order. Valid values: <ul style="list-style-type: none"> • RENEWCHANGE: renewal with upgrade or downgrade • TEMP_UPGRADE: temporary upgrade • UPGRADE: upgrade
AllocationTime	String	2021-04-23T01:37:38Z	The time when the EIP was created. The time is displayed in <code>YYYY-MM-DDThh:mm:ssZ</code> format.
Netmode	String	public	The network type.
ChargeType	String	PostPaid	The billing method of the EIP. Valid values: <ul style="list-style-type: none"> • PrePaid: subscription • PostPaid: pay-as-you-go
Description	String	abc	The description of the EIP.
SegmentInstanceId	String	eipsg-t4nr90yik5oy38xd****	The ID of the contiguous EIP group. This value is returned only when you query contiguous EIP groups.
ReservationInternetChargeType	String	PayByBandwidth	The metering method that is used after the renewal takes effect. Valid values: <ul style="list-style-type: none"> • PayByBandwidth: pay-by-bandwidth • PayByTraffic: pay-by-data-transfer
BandwidthPackageId	String	cbwp-bp1ego3i4j07ccdvf****	The ID of the EIP bandwidth plan.
IpAddress	String	47.75.XX.XX	The IP address of the EIP.
Bandwidth	String	5	The maximum bandwidth of the EIP. Unit: Mbit/s.
ReservationBandwidth	String	12	The maximum bandwidth after the renewal takes effect. Unit: Mbit/s.

Parameter	Type	Example	Description
EipBandwidth	String	101	The maximum bandwidth of the EIP when it is not associated with an EIP bandwidth plan. Unit: Mbit/s.
Name	String	EIP-01	The name of the EIP.
InstanceRegionId	String	cn-hangzhou	The region ID of the associated instance.
DeletionProtection	Boolean	true	Indicates whether deletion protection is enabled. Valid values: <ul style="list-style-type: none"> true: enabled false: disabled
InstanceId	String	i-bp15zckdt37cdvf****	The ID of the associated instance.
SecondLimited	Boolean	false	Indicates whether level-2 throttling is configured. Valid values: <ul style="list-style-type: none"> true: yes false: no
InstanceType	String	EcsInstance	The type of the associated instance. Valid values: <ul style="list-style-type: none"> EcsInstance: an ECS instance in a VPC SlbInstance: an SLB instance in a VPC Nat: a NAT gateway HaVip: an HAVIP NetworkInterface: a secondary ENI
HdMonitorStatus	String	false	Indicates whether fine-grained monitoring is enabled for the EIP. Valid values: <ul style="list-style-type: none"> false: disabled true: enabled
RegionId	String	cn-hangzhou	The region ID of the EIP.
BandwidthPackageBandwidth	String	50	The maximum bandwidth of the EIP bandwidth plan with which the EIP is associated. Unit: Mbit/s.
ServiceManaged	Integer	0	Indicates whether the EIP is created by the service account. Valid values: <ul style="list-style-type: none"> 0: no 1: yes

Parameter	Type	Example	Description
ExpiredTime	String	2021-05-23T02:00:00Z	The time when the EIP expires. The time is displayed in <code>YYYY-MM-DDThh:mm:ssZ</code> format.
ResourceGroupId	String	rg-acfmxazcdxs****	The ID of the resource group.
AllocationId	String	eip-2zeerraiwb7ujcdvf****	The ID of the EIP.
InternetChargeType	String	PayByBandwidth	The metering method of the EIP. Valid values: Valid values: <ul style="list-style-type: none"> PayByBandwidth: pay-by-bandwidth PayByTraffic: pay-by-data-transfer
BusinessStatus	String	Normal	The status of the EIP. Valid values: <ul style="list-style-type: none"> Normal: normal FinancialLocked: locked
BandwidthPackageType	String	CommonBandwidthPackage	The type of the bandwidth. Only CommonBandwidthPackage (EIP bandwidth plan) is returned.
HasReservationData	String	false	Indicates whether renewal data is included. This parameter returns true only when the IncludeReservationData parameter is set to true and some orders have not taken effect.
ISP	String	BGP	The ISP.
OperationLocks	Array of LockReason		The details about the locked EIPs.
LockReason			
LockReason	String	financial	The reason why the EIP is locked. Valid values: <ul style="list-style-type: none"> financial: The EIP is locked due to overdue payments. security: The EIP is locked for security reasons.
AvailableRegions	Array of String	cn-hangzhou	The region ID of the EIP.
SecurityProtectionTypes	Array of String	AntiDDoS_Enhanced	The edition of Anti-DDoS. <ul style="list-style-type: none"> If this parameter is empty, it indicates that Anti-DDoS Origin is used. If AntiDDoS_Enhanced is returned, it indicates that Anti-DDoS Pro/Premium is used.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DescribeEipAddresses
&RegionId=cn-hangzhou
&IncludeReservationData=true
&Status=Available
&EipAddress=47.75.XX.XX
&AllocationId=eip-2zeerraiwb7ujxscd****
&SegmentInstanceId=eipsg-t4nr90yik5oy38xdy****
&ResourceGroupId=rg-acfmxazb4pcdvf****
&PageNumber=10
&PageSize=10
&ISP=BGP
&Filter.1.Key=CreationStartTime
&Filter.2.Key=CreationEndTime
&Filter.1.Value=2021-05-22T09:12:00Z
&Filter.2.Value=2021-05-22T09:15:00Z
&LockReason=financial
&AssociatedInstanceType=EcsInstance
&AssociatedInstanceId=i-2zebb08phyccdvf****
&ChargeType=PostPaid
&DryRun=false
&EipName=EIP-01
&SecurityProtectionEnabled=false
&<Common request parameters>
```

Sample success responses

XML [format](#)

```

HTTP/1.1 200 OK
Content-Type:application/xml
<DescribeEipAddressesResponse>
  <PageSize>10</PageSize>
  <RequestId>4EC47282-1B74-4534-BD0E-403F3EE64CAF</RequestId>
  <PageNumber>10</PageNumber>
  <TotalCount>10</TotalCount>
  <EipAddresses>
    <ReservationActiveTime>2021-05-23T16:00:00Z</ReservationActiveTime>
    <Status>Available</Status>
    <ReservationOrderType>RENEWCHANGE</ReservationOrderType>
    <AllocationTime>2021-04-23T01:37:38Z</AllocationTime>
    <Netmode>public</Netmode>
    <ChargeType>PostPaid</ChargeType>
    <Description>abc</Description>
    <SegmentInstanceId>eipsg-t4nr90yik5oy38xd****</SegmentInstanceId>
    <ReservationInternetChargeType>PayByBandwidth</ReservationInternetChargeType>
    <BandwidthPackageId>cbwp-bp1ego3i4j07ccdvf****</BandwidthPackageId>
    <IpAddress>47.75.XX.XX</IpAddress>
    <Bandwidth>5</Bandwidth>
    <ReservationBandwidth>12</ReservationBandwidth>
    <EipBandwidth>101</EipBandwidth>
    <Name>EIP-01</Name>
    <InstanceRegionId> cn-hangzhou</InstanceRegionId>
    <DeletionProtection>true</DeletionProtection>
    <InstanceId>i-bp15zckdt37cdvf****</InstanceId>
    <SecondLimited>>false</SecondLimited>
    <InstanceType>EcsInstance</InstanceType>
    <HDMonitorStatus>>false</HDMonitorStatus>
    <RegionId>cn-hangzhou</RegionId>
    <BandwidthPackageBandwidth>50</BandwidthPackageBandwidth>
    <ServiceManaged>0</ServiceManaged>
    <ExpiredTime>2021-05-23T02:00:00Z</ExpiredTime>
    <ResourceGroupId>rg-acfmxazcdxs****</ResourceGroupId>
    <AllocationId>eip-2zeerraiwb7ujcdvf****</AllocationId>
    <InternetChargeType>PayByBandwidth</InternetChargeType>
    <BusinessStatus>Normal</BusinessStatus>
    <BandwidthPackageType>CommonBandwidthPackage</BandwidthPackageType>
    <HasReservationData>>false</HasReservationData>
    <ISP>BGP</ISP>
    <OperationLocks>
      <LockReason>financial</LockReason>
    </OperationLocks>
    <AvailableRegions>cn-hangzhou</AvailableRegions>
    <SecurityProtectionTypes>AntiDDoS_Enhanced</SecurityProtectionTypes>
  </EipAddresses>
</DescribeEipAddressesResponse>

```

JSON **format**

```

HTTP/1.1 200 OK
Content-Type:application/json
{
  "PageSize" : 10,
  "RequestId" : "4EC47282-1B74-4534-BD0E-403F3EE64CAF",
  "PageNumber" : 10,
  "TotalCount" : 10,
  "EipAddresses" : [ {
    "ReservationActiveTime" : "2021-05-23T16:00:00Z",
    "Status" : "Available",
    "ReservationOrderType" : "RENEWCHANGE",
    "AllocationTime" : "2021-04-23T01:37:38Z",
    "Netmode" : "public",
    "ChargeType" : "PostPaid",
    "Description" : "abc",
    "SegmentInstanceId" : "eipsg-t4nr90yik5oy38xd****",
    "ReservationInternetChargeType" : "PayByBandwidth",
    "BandwidthPackageId" : "cbwp-bplego3i4j07ccdvm****",
    "IpAddress" : "47.75.XX.XX",
    "Bandwidth" : "5",
    "ReservationBandwidth" : "12",
    "EipBandwidth" : "101",
    "Name" : "EIP-01",
    "InstanceRegionId" : "cn-hangzhou",
    "DeletionProtection" : true,
    "InstanceId" : "i-bp15zckdt37cdvm****",
    "SecondLimited" : false,
    "InstanceType" : "EcsInstance",
    "HDMonitorStatus" : "false",
    "RegionId" : "cn-hangzhou",
    "BandwidthPackageBandwidth" : "50",
    "ServiceManaged" : 0,
    "ExpiredTime" : "2021-05-23T02:00:00Z",
    "ResourceGroupId" : "rg-acfmazcdxs****",
    "AllocationId" : "eip-2zeerraiwb7ujcdvm****",
    "InternetChargeType" : "PayByBandwidth",
    "BusinessStatus" : "Normal",
    "BandwidthPackageType" : "CommonBandwidthPackage",
    "HasReservationData" : "false",
    "ISP" : "BGP",
    "OperationLocks" : [ {
      "LockReason" : "financial"
    } ],
    "AvailableRegions" : [ "cn-hangzhou" ],
    "SecurityProtectionTypes" : [ "AntiDDoS_Enhanced" ]
  } ]
}

```

Error codes

HttpCode	Error codes	Error message	Description
400	InvalidAssociatedInstanceType.ValueNotSupported	The specified value of AssociatedInstanceType is not supported.	The error message returned because AssociatedInstanceType is set to an invalid value. Check whether the value is valid.

HttpCode	Error codes	Error message	Description
400	InvalidChargeType.ValueNotSupported	The specified ChargeType is not supported.	The error message returned because the specified billing method is not supported. Set a supported billing method.
400	InvalidResourceGroupId	The specified ResourceGroupId does not exist.	The error message returned because the specified resource group ID is invalid.
400	OperationUnsupported.ResourceGroupId	ResourceGroup is not supported in this region.	The error message returned because the resource group feature is disabled.
404	Forbidden.RegionNotFound	Specified region is not found during access authentication.	The error message returned because the specified region does not exist. Check whether the specified region ID is valid.
404	InvalidLockReason.NotFound	The specified LockReason is not found	The error message returned because the reason why the EIP is locked is unknown.

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

4.4. ModifyEipAddressAttribute

Modifies the name, description, and bandwidth limit of a pay-as-you-go elastic IP address (EIP). You cannot call this operation to modify the name, description, or bandwidth limit of a subscription EIP.

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	ModifyEipAddressAttribute	The operation that you want to perform. Set the value to ModifyEipAddressAttribute .
AllocationId	String	Yes	eip-2zeerraiwb7uj6i0d**	The ID of the pay-as-you-go EIP.
Bandwidth	String	No	100	The new bandwidth limit of the EIP. Valid values: <ul style="list-style-type: none"> 1 to 200 if the metering method is pay-by-data-transfer. Unit: Mbit/s. 1 to 500 if the metering method is pay-by-bandwidth. Unit: Mbit/s.

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-hangzhou	The region ID of the EIP.
Name	String	No	Test123	The new name of the EIP. The name must be 1 to 128 characters in length, and can contain digits, periods (.), underscores (_), and hyphens (-). The name must start with a letter but cannot start with <code>http://</code> or <code>https://</code> .
Description	String	No	abc	The new description for the EIP. The description must be 2 to 256 characters in length. It must start with a letter, but cannot start with <code>http://</code> or <code>https://</code> .

Response parameters

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

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ModifyEipAddressAttribute
&AllocationId=eip-2zeerraiwb7uj6i0d****
&<Common request parameters>
```

Sample success responses

XML format

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

JSON format

```
null
```

Error codes

HttpCode	Error code	Error message	Description
400	InsufficientBalance.Eip	Your account does not have enough balance.	The error message returned because your account balance is insufficient. Top up your account and try again.

HttpCode	Error code	Error message	Description
404	InvalidAllocationId.NotFound	Specified allocation ID is not found	The error message returned because the specified EIP does not exist. Check whether the specified value is valid.
400	InvalidParameter	Specified value of "Bandwidth" is not supported.	The error message returned because the specified bandwidth value is invalid.
500	InternalServerError	The request processing has failed due to some unknown error.	The error message returned because an unknown error occurred.
400	IncorrectEipStatus	Current elastic IP status does not support this operation.	The error message returned because you cannot perform the operation when the specified EIP is in the current state.
404	InvalidAllocationId.NotFound	Specified allocation ID is not found..	The error message returned because the specified EIP does not exist. Check whether the value of the parameter is valid.
400	InvalidParameter	The parameter is invalid.	The error message returned because the parameter is set to an invalid value.
404	Forbidden.RegionNotFound	Specified region is not found during access authentication.	The error message returned because the specified region does not exist. Check whether the specified region ID is valid.

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

4.5. ReleaseEipAddress

Releases a specific elastic IP address (EIP).

Description

Before you release an EIP, make sure that the EIP meets the following requirements:

- You can release only an EIP that is in the **Available** state.
- You can release only pay-as-you-go EIPs. You cannot release subscription EIPs.

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	ReleaseEipAddress	The operation that you want to perform. Set the value to ReleaseEipAddress .

Parameter	Type	Required	Example	Description
AllocationId	String	Yes	eip-2zeerraiwb7uj6i0d**	The ID of the EIP that you want to release.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the EIP that you want to release belongs. You can call the DescribeRegions operation to query region IDs.

Response parameters

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

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=ReleaseEipAddress
&AllocationId=eip-2zeerraiwb7uj6i0d****
&<Common request parameters>
```

Sample success responses

XML format

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

JSON format

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

Error codes

HttpCode	Error code	Error message	Description
404	InvalidAllocationId.NotFound	Specified allocation ID is not found	The error message returned because the specified EIP does not exist. Check whether the specified value of the parameter is valid.
400	IncorrectEipStatus	Current elastic IP status does not support this operation.	The error message returned because the specified state of the EIP does not support this operation.
500	InternalServerError	The request processing has failed due to some unknown error.	The error message returned because unknown errors have occurred.

HttpCode	Error code	Error message	Description
404	Forbidden.RegionNotFound	Specified region is not found during access authentication.	The error message returned because the specified region ID does not exist. Check whether the specified region ID is valid.
400	Forbidden.ChargeTypesPrepaid	It's forbidden to release a prepaid EIP	The error message returned because you cannot release subscription EIPs.
400	Forbidden	The eip instance owner error	The error message returned because you are not authorized to perform this operation on the EIP. Check whether you have permissions to call this operation.
400	TaskConflict.AssociateGlobalAccelerationInstance	Operate too frequent.	The error message returned because too many requests are sent.

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

4.6. AllocateEipSegmentAddress

Applies for contiguous elastic IP addresses (EIPs).

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
ClientToken	String	No	02fb3da4-130e-11e9-8e44-001****	<p>The client Token that is used to ensure the idempotence of the request.</p> <p>You can use the client to generate the value, but you must make sure that it is unique among different requests. The token can contain only ASCII characters and cannot exceed 64 characters in length.</p> <div style="border: 1px solid #ccc; background-color: #e6f2ff; padding: 5px; margin-top: 10px;"> <p> Note If you do not set this parameter, the system automatically uses <code>RequestId</code> as <code>ClientToken</code>. <code>RequestId</code> may be different for each API request.</p> </div>
Action	String	Yes	AllocateEipSegmentAddress	The operation that you want to perform. Set the value to AllocateEipSegmentAddress .

Parameter	Type	Required	Example	Description
Bandwidth	String	No	5	<p>The maximum bandwidth of the EIP. Unit: Mbit/s.</p> <ul style="list-style-type: none"> When InstanceChargeType is set to PostPaid and InternetChargeType is set to PayByBandwidth, valid values for Bandwidth are 1 to 500. When InstanceChargeType is set to PostPaid and InternetChargeType is set to PayByTraffic, valid values for Bandwidth are 1 to 200. When InstanceChargeType is set to PrePaid, valid values for Bandwidth are 1 to 1000. <p>Default value: 5. Unit: Mbit/s.</p>
RegionId	String	Yes	cn-hangzhou	<p>The region ID of the contiguous EIPs.</p> <p>You can call the DescribeRegions operation to query the most recent region list.</p>
EipMask	String	Yes	28	<p>The subnet mask length for the contiguous EIPs. Valid values:</p> <ul style="list-style-type: none"> 28: applies for 16 contiguous EIPs in each call. 27: applies for 32 contiguous EIPs in each call. 26: applies for 64 contiguous EIPs each call. 25: applies for 128 contiguous EIPs in each call. 24: applies for 256 contiguous EIPs in each call. <p> Note The number of contiguous EIPs allocated by the system may be less than the requested number because one, three, or four EIPs may be reserved.</p>

Parameter	Type	Required	Example	Description
Netmode	String	No	public	<p>The network type. Valid values:</p> <ul style="list-style-type: none"> • public (default): Internet After contiguous EIPs are associated with cloud resources, the cloud resources can access the Internet by using the EIPs. • hybrid: a hybrid cloud After contiguous EIPs are associated with cloud resources, the cloud resources can access hybrid clouds by using the EIPs. <p> Note This network type is available only to users who are included in the whitelist. To use this network type, contact your customer business manager.</p>
InternetChargeType	String	No	PayByBandwidth	<p>The metering method of the contiguous EIPs. Valid values:</p> <ul style="list-style-type: none"> • PayByBandwidth (default): pay-by-bandwidth. • PayByTraffic: pay-by-data-transfer. <p> Note If the Netmode parameter is set to hybrid, you can set InternetChargeType only to PayByBandwidth.</p>
ResourceGroupId	String	No	rg-bp67acfmxazb4ph* ***	The ID of the resource group.

Parameter	Type	Required	Example	Description
lsp	String	No	BGP	<p>The line type. You can set this parameter only when you create pay-as-you-go EIPs. Valid values:</p> <ul style="list-style-type: none"> • BGP: BGP (Multi-ISP) lines Up to 89 high-quality BGP lines are available worldwide. Direct connections with multiple Internet service providers (ISPs), including China Telecom, China Unicom, China Mobile, China Mobile Tietong, China Netcom, CERNET, China Broadcast Network, Dr. Peng Group, and Founder, can be established in all regions in mainland China. • BGP_PRO: BGP (Multi-ISP) Pro lines BGP (Multi-ISP) Pro lines optimize data transmission to mainland China and improve connection quality for international services. Compared with BGP (Multi-ISP), when BGP (Multi-ISP) Pro lines provide services to users in mainland China (excluding data centers), cross-border connections are established by using mainland China ISP services. This reduces network latency. BGP (Multi-ISP) lines are supported in all regions. BGP (Multi-ISP) Pro lines are supported only in the China (Hong Kong) region. <p>Note If your Alibaba Cloud account is included in the BGP (single line) whitelist, you can set the <code>lsp</code> parameter to ChinaTelecom, ChinaUnicom, or ChinaMobile. If your workloads are deployed in China East 1 Finance, this parameter is required and you must set the value to BGP_FinanceCloud.</p>

Response parameters

Parameter	Type	Example	Description
RequestId	String	F7A6301A-64BA-41EC-8284-8F4838C15D1F	The ID of the request.
OrderId	Long	2019****	The ID of the order.
EipSegmentInstanceid	String	eipsg-2zett8ba055tbsxme*** *	The ID of the contiguous EIP group.

Examples

Sample requests

```
http(s)://[Endpoint]/?ClientToken=02fb3da4-130e-11e9-8e44-001****
&Action=AllocateEipSegmentAddress
&Bandwidth=5
&RegionId=cn-hangzhou
&EipMask=28
&Netmode=public
&InternetChargeType=PayByBandwidth
&ResourceGroupId=rg-bp67acfmazb4ph****
&Isp=BGP
&Common request parameters
```

Sample success responses

XML **format**

```
HTTP/1.1 200 OK
Content-Type:application/xml
<AllocateEipSegmentAddressResponse>
  <RequestId>F7A6301A-64BA-41EC-8284-8F4838C15D1F </RequestId>
  <OrderId>2019****</OrderId>
  <EipSegmentInstanceId>eipsg-2zett8ba055tbsxme****</EipSegmentInstanceId>
</AllocateEipSegmentAddressResponse>
```

JSON **format**

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "F7A6301A-64BA-41EC-8284-8F4838C15D1F\t",
  "OrderId" : 2019****,
  "EipSegmentInstanceId" : "eipsg-2zett8ba055tbsxme****"
}
```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidParameter	Specified value of "Bandwidth" is not valid.	The error message returned because the specified bandwidth value is invalid.
400	InsufficientBalance	Your account does not have enough balance.	The error message returned because your account balance is insufficient. Top up your account and try again.
400	QuotaExceeded.Eip	Elastic IP address quota exceeded.	The error message returned because the number of EIPs has reached the upper limit. We recommend that you use NAT gateways if you want to use more EIPs.
400	ReservelpFail	Reserve eip failed.	The error message returned because the system failed to reserve the specified EIP.

HttpCode	Error code	Error message	Description
400	InvalidRegion.NotSupport	The specified region does not support.	The error message returned because the specified region does not support this operation.
400	InvalidResourceGroupId	The specified ResourceGroupId does not exist.	The error message returned because the specified resource group ID is invalid.
400	ORDER.QUANTITY_INVALID	User quota has exceeded the limit.	The error message returned because the number of EIPs that you have created has reached the upper limit. Go to the Quota Management page to request a quota increase.
403	Forbidden	User not authorized to operate on the specified resource.	The error message returned because you are unauthorized to perform the operation on the specified resource. Apply for the permissions and try again.
409	OperationConflict	Request was denied due to conflict with a previous request.	The error message returned because your request is conflicting with another request. Try again later.

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

4.7. DescribeEipSegment

You can call this operation to query a contiguous Elastic IP address group.

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	DescribeEipSegment	The operation that you want to perform. Set the value to DescribeEipSegment .
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the contiguous Elastic IP address group belongs. You can call the DescribeRegions operation to query the region ID.

Parameter	Type	Required	Example	Description
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. The token must be a maximum of 64 characters in length and can contain only ASCII characters.
SegmentInstanceId	String	No	eipsg-2zett8ba055tbsxm e****	The ID of the instance to query. The contiguous Elastic IP address group is associated with the instance.
PageNumber	Integer	No	1	The number of the page to return. Pages start from page 1. Default value: 1.
PageSize	Integer	No	10	The number of entries to return on each page. Valid values: 1 to 50. Default value: 10.

Response parameters

Parameter	Type	Example	Description
EipSegments	Array		The details about the contiguous Elastic IP address group.
EipSegment			
CreationTime	String	2020-03-06T12:30:07Z	The time when the contiguous Elastic IP address group was created. The time follows the ISO 8601 standard in the yyyy-MM-ddTHH:mm:ssZ format. The time is displayed in UTC.
Description	String	MyEipSegment	The description of the contiguous Elastic IP address group.
InstanceId	String	eipsg-2zett8ba055tbsxme*** *	The ID of the instance with which the contiguous Elastic IP address group is associated.
IpCount	String	28	The number of IP addresses contained in the contiguous Elastic IP address group.

Parameter	Type	Example	Description
Name	String	MyEipSegment	The name of the contiguous Elastic IP address group.
RegionId	String	cn-hangzhou	The ID of the region to which the contiguous Elastic IP address group belongs.
Segment	String	161.xx.xx.32/28	The CIDR block and mask of the contiguous Elastic IP address group.
Status	String	Allocated	The status of the contiguous Elastic IP address group. Valid values: <ul style="list-style-type: none">• Allocating: The contiguous Elastic IP address group is being allocated.• Allocated: The contiguous Elastic IP address group is allocated.• Releasing: The contiguous Elastic IP address group is being released.• Released: The contiguous Elastic IP address group is released.
PageNumber	Integer	2	The page number of the returned page.
PageSize	Integer	10	The number of entries returned per page.
RequestId	String	F7A6301A-64BA-41EC-8284-8F4838C15D1F	The ID of the request.
TotalCount	Integer	1	The total number of entries returned.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=DescribeEipSegment
&RegionId=cn-hangzhou
&<Common request parameters>
```

Sample success responses

`XML` format

```
<DescribeEipSegmentResponse>
  <EipSegments>
    <EipSegment>
      <Status>Allocated</Status>
      <Description></Description>
      <IpCount>16</IpCount>
      <InstanceId>eipsg-t4nr90yik5oy38xdy****</InstanceId>
      <CreationTime>2020-03-06T12:30:07Z</CreationTime>
      <RegionId>ap-southeast-1</RegionId>
      <Segment>161.xx.xx.32/28</Segment>
      <Name></Name>
    </EipSegment>
  </EipSegments>
  <TotalCount>1</TotalCount>
  <PageSize>50</PageSize>
  <RequestId>A4862138-CCF6-4A24-BDE4-39055DFEFB92</RequestId>
  <PageNumber>1</PageNumber>
</DescribeEipSegmentResponse>
```

JSON **format**

```
{
  "EipSegments": {
    "EipSegment": [
      {
        "Status": "Allocated",
        "Description": "",
        "IpCount": 16,
        "InstanceId": "eipsg-t4nr90yik5oy38xdy****",
        "CreationTime": "2020-03-06T12:30:07Z",
        "RegionId": "ap-southeast-1",
        "Segment": "161.xx.xx.32/28",
        "Name": ""
      }
    ]
  },
  "TotalCount": 1,
  "PageSize": 50,
  "RequestId": "A4862138-CCF6-4A24-BDE4-39055DFEFB92",
  "PageNumber": 1
}
```

Error codes

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

4.8. ReleaseEipSegmentAddress

You can call this operation to release contiguous Elastic IP addresses.

Description

You can call this operation to release all Elastic IP addresses from a contiguous Elastic IP address group.

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	ReleaseEipSegmentAddress	The operation that you want to perform. Set the value to ReleaseEipSegmentAddress .
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the contiguous Elastic IP addresses belong. You can call the DescribeRegions operation to query the region ID.
SegmentInstanceId	String	Yes	eipsg-2zett8ba055tbsxme****	The ID of the instance for which Elastic IP addresses are to release from a contiguous Elastic IP address group. After this parameter is set, the system releases all Elastic IP addresses from the contiguous Elastic IP address group.
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. The token must be a maximum of 64 characters in length and can contain only ASCII characters.

Response parameters

Parameter	Type	Example	Description
RequestId	String	F7A6301A-64BA-41EC-8284-8F4838C15D1F	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/? Action=ReleaseEipSegmentAddress
&RegionId=cn-hangzhou
&SegmentInstanceId=eipsg-2zett8ba055tbsxme****
&<Common request parameters>
```

Sample success responses

XML format

```
<ReleaseEipSegmentAddressResponse>
  <RequestId>F7A6301A-64BA-41EC-8284-8F4838C15D1F</RequestId>
</ReleaseEipSegmentAddressResponse>
```

JSON format

```
{
  "RequestId": "F7A6301A-64BA-41EC-8284-8F4838C15D1F"
}
```

Error codes

HTTP status code	Error code	Error message	Description
400	IncorrectEipStatus	Current elastic IP status does not support this operation.	The error message returned because this operation cannot be performed while the specified contiguous Elastic IP addresses are in the current state.
500	InternalError	The request processing has failed due to some unknown error.	The error message returned because unknown errors occur.
404	Forbidden.RegionNotFound	Specified region is not found during access authentication.	The error message returned because the specified region does not exist.
400	Forbidden.ChargeTypesPrepaid	It's forbidden to release a prepaid EIP	The error message returned because the subscription contiguous Elastic IP addresses cannot be released.
400	Forbidden	The eip instance owner error	The error message returned because you are not authorized to perform this operation on the contiguous Elastic IP addresses.
400	TaskConflict.AssociateGlobalAccelerationInstance	Operate too frequent.	The error message returned because too many requests are sent.

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

4.9. AssociateEipAddress

Associates an elastic IP address (EIP) with an instance in the same region.

Description

You can associate an EIP with an Elastic Compute Service (ECS) instance, an internal-facing Server Load Balancer (SLB) instance, a secondary elastic network interface (ENI), a NAT gateway, or a high-availability virtual IP address (HAVIP) in the same region. The ECS instance and internal-facing SLB instance must be deployed in a virtual private cloud (VPC).

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
-----------	------	----------	---------	-------------

Parameter	Type	Required	Example	Description
Action	String	Yes	AssociateEipAddresses	The operation that you want to perform. Set the value to AssociateEipAddress .
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the EIP belongs. You can call the DescribeRegions operation to query the most recent region list.
AllocationId	String	Yes	eip-2zeerraiwb7ujxdc* ***	The ID of the EIP that you want to associate with an instance.
InstanceId	String	Yes	i-2zebb08phyczzawe ****	The ID of the instance with which you want to associate the EIP. NAT gateways, SLB instances, ECS instances, secondary ENIs, and HAVIPs are supported.
InstanceType	String	No	EcsInstance	The type of instance with which you want to associate the EIP. Valid values: <ul style="list-style-type: none"> • Nat: a NAT gateway • SlbInstance: an SLB instance • EcsInstance (default): an ECS instance in a VPC • NetworkInterface: a secondary ENI • HaVip: an HAVIP <div style="background-color: #e0f2f1; padding: 5px; border: 1px solid #ccc;"> <p> Note If you do not set this parameter, the type of the instance with which you want to associate the EIP is EcsInstance. If the type of the instance with which you want to associate the EIP is not EcsInstance, this parameter is required.</p> </div>
InstanceRegionId	String	No	cn-hangzhou	The region ID of the instance with which you want to associate the EIP. <div style="background-color: #e0f2f1; padding: 5px; border: 1px solid #ccc;"> <p> Note This parameter is required only when the EIP is associated with a shared-bandwidth Global Accelerator (GA) instance.</p> </div>

Parameter	Type	Required	Example	Description
PrivateIpAddress	String	No	192.168.XX.XX	An IP address in the CIDR block of the vSwitch. If you do not set this parameter, the system allocates a private IP address based on the VPC ID and vSwitch ID.
Mode	String	No	NAT	The association mode. Valid values: <ul style="list-style-type: none"> NAT (default): NAT mode MULTI_BINDED: multi-EIP-to-ENI mode BINDED: cut-through mode This parameter is required only when InstanceType is set to NetworkInterface .
ClientToken	String	No	0c593ea1-3bea-11e9-b96b-88e9fe63****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must make sure that it is unique among different requests. The <code>ClientToken</code> value can contain only ASCII characters and cannot exceed 64 characters in length.

Response parameters

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

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=AssociateEipAddress
&RegionId=cn-hangzhou
&AllocationId=eip-2zeerraiwb7ujsxdc****
&InstanceId=i-2zebb08phyczzawe****
&InstanceType=EcsInstance
&InstanceRegionId=cn-hangzhou
&PrivateIpAddress=192.168.XX.XX
&Mode=NAT
&ClientToken=0c593ea1-3bea-11e9-b96b-88e9fe63****
&Common request parameters
```

Sample success responses

`XML` format

```

HTTP/1.1 200 OK
Content-Type:application/xml
<AssociateEipAddressResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCAC0</RequestId>
</AssociateEipAddressResponse>

```

JSON format

```

HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "0ED8D006-F706-4D23-88ED-E11ED28DCAC0"
}

```

Error codes

HttpCode	Error code	Error message	Description
400	InvalidAssociation.Duplicated	Specified instance already is associated.	The error message returned because an EIP or a GA instance is already associated with the specified instance. You must disassociate the EIP or GA instance from the specified instance before you can perform the operation.
400	OperationDenied	Specified instance is not in VPC.	The error message returned because 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 error message returned because the specified EIP and ECS instance do not belong to the same region.
400	IncorrectEipStatus	Current elastic IP status does not support this operation	The error message returned because the status of the EIP does not support the operation.
400	IncorrectInstanceStatus	Current instance status 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 InstanceType is set to an invalid value.
400	InvalidParameter	The specified parameter is not valid.	The error message returned because the parameter is set to an invalid value.
400	OperationDenied	Eip of default vpc not allow this operation	The error message returned because the operation is not supported by EIPs in the default VPC.
400	Forbidden	The eip instance owener error	The error message returned because you are unauthorized to perform the operation on the EIP.

HttpCode	Error code	Error message	Description
400	InvalidBindingStatus	The eip binding status invalid.	The error message returned because the EIP is in an invalid state.
400	BIND_INSTANCE_HAVE_PORT_MAP_OR_BIND_EIP	The instance may have portMap or already bind eip.	The error message returned because a port forwarding rule is configured for the ECS instance. Delete the port forwarding rule and try again.
400	BIND_INSTANCE_OWNER_ERROR	Cannot operate the eip.	The error message returned because you are unauthorized to manage the specified EIP.
400	InvalidParams.NotFound	instance not found	The error message returned because the specified instance does not exist.
400	OperationDenied.CloudBoxResourceExist	The operation is not allowed because there are resources related to the cloud box in VPC.	The error message returned because the VPC contains CloudBox-related resources and the operation is not allowed.
400	OperationDenied.CloudBoxVSwitchExist	The operation is not allowed because a cloud box type vSwitch exists in VPC.	The error message returned because the VPC contains a vSwitch of the CloudBox type and the operation is not allowed.
404	InvalidInstanceId.NotFound	Specified instance does not exist.	The error message returned because the specified instance does not exist. Check whether the instance ID is valid.
404	InvalidAllocationId.NotFound	Specified allocation ID is not found	The error message returned because the specified EIP does not exist. Check whether the specified value is valid.
503	ServiceUnavailable	The request has failed due to a temporary failure of the server.	The error message returned because the request failed due to a temporary malfunction of the server.

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

4.10. UnassociateEipAddress

Disassociates an elastic IP address (EIP) 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
-----------	------	----------	---------	-------------

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 ID of the EIP that you want to disassociate. You can call the DescribeRegions operation to query region IDs.
Force	Boolean	No	false	Specifies whether to disassociate the EIP from a NAT gateway if a DNAT or SNAT entry is added to the NAT gateway. Valid values: <ul style="list-style-type: none"> false (default): does not disassociate the EIP from a NAT gateway if a DNAT or SNAT entry is added to the NAT gateway. true: disassociates the EIP from a NAT gateway if a DNAT or SNAT entry is added to the NAT gateway.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the EIP that you want to disassociate belongs.
InstanceId	String	No	i-hp3akk9irt69jad***	The ID of the cloud resource from which you want to disassociate the EIP.
InstanceType	String	No	EcsInstance	The type of the cloud resource from which you want to disassociate the EIP. Valid values: <ul style="list-style-type: none"> EcsInstance (default): an Elastic Compute Service (ECS) instance that is deployed in a virtual private cloud (VPC) SlbInstance: a Server Load Balancer (SLB) instance that is deployed in a VPC NetworkInterface: a secondary elastic network interface (ENI) that is deployed in a VPC Nat: a NAT gateway HaVip: a high-availability virtual IP address (HAVIP)
PrivateIpAddress	String	No	192.XX.XX.2	The private IP address of the ECS instance or the secondary ENI from which you want to disassociate the EIP.

Parameter	Type	Required	Example	Description
ClientToken	String	No	02fb3da4-130e-11****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must ensure that it is unique among different requests. <code>ClientToken</code> can contain only ASCII characters and cannot exceed 64 characters in length.

Response parameters

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

Examples

Sample requests

```
&<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

HttpCode	Error code	Error message	Description
404	InvalidAllocationId.NotFound	Specified allocation ID is not found	The error message returned because the specified EIP does not exist. Check whether the specified value of the parameter is valid.
400	IncorrectEipStatus	Current elastic IP status does not support this operation.	The error message returned because the state of the EIP does not support this operation.
400	InvalidInstanceId.NotFound	Specified instance does not exist.	The error message returned because the specified instance does not exist. Check whether the specified instance is valid.

HttpCode	Error code	Error message	Description
400	IncorrectInstanceStatus	The current status of instance does not support this operation.	The error message returned because the state of the instance does not support this operation.
400	InvalidInstanceType.ValueNotSupported	The specified value of InstanceType is not supported.	The error message returned because the specified value of the InstanceType parameter is invalid.
400	IncorrectHaVipStatus	This operation is denied because satus of the specified HaVip is neither Available nor InUse.	The error message returned because you cannot perform the operation when the specified HAVIP is in the Available or InUse state.
400	OperationDenied	Eip of default vpc not allow this operation	The error message returned because you cannot perform the operation when the EIP is associated with a 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 ID does not exist. Check whether the specified region ID is valid.
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 owener error	The error message returned because you are not authorized to perform this operation on the EIP. Check whether you have permissions to call this operation.
400	InvalidBindingStatus	The eip binding status invalid.	The error message returned because the EIP is in an invalid state.

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

4.11. 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 .

Parameter	Type	Required	Example	Description
NewResourceGroupId	String	Yes	rg-acfm3peow3k****	The ID of the resource group to which the cloud resource instance is to be moved. <div style="border: 1px solid #add8e6; padding: 5px; background-color: #e6f2ff;"> <p> 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?.</p> </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.
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](#).

4.12. ListIpGeolocations

Queries the geographical locations of IP addresses.

Description

By default, you cannot call this operation in OpenAPI Explorer. To call this operation in OpenAPI Explorer, [submit a ticket](#).

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	No	ListIpGeolocations	The operation that you want to perform. Set the value to ListIpGeolocations .
CountryCode	String	No	CN	The country to which the public IP addresses belong. Specify the country code in the ISO 3166 standard.
CityCode	String	No	HK	The city to which the public IP addresses belong. Specify the city code in the ISO 3166 standard.
Ipv4Prefix	String	No	203.0.XX.XX/24	The IPv4 CIDR block that you want to query. Example: <code>203.0.XX.XX/24</code> . If you specify only <code>203.0.XX.XX</code> , the system queries the geographical locations of <code>203.0.XX.XX/32</code> .
ResourcePoolName	String	No	Alibaba_Cloud	The name of the IP address pool. Valid values: Alibaba_Cloud and Alibaba_CDN .
NextToken	String	No	caeba0bbb2be03f84eb48b699f0a4883	The query token. Set this parameter to the NextToken value that is returned to the last API call. If no subsequent queries are to be sent, leave this parameter empty.

Parameter	Type	Required	Example	Description
MaxResults	Integer	No	50	The number of entries to return on each page. Maximum value: 100 . Default value: 20 .

Response parameters

Parameter	Type	Example	Description
IpGeolocationModels	Array of IpGeolocationModel		The list of geographical locations.
IpGeolocationModel			
CityCode	String	HK	The city to which the public IP addresses belong. The value follows the ISO 3166 standard.
CountryCode	String	CN	The country to which the public IP addresses belong. The value follows the ISO 3166 standard.
Ipv4Prefix	String	203.0.XX.XX/24	The IPv4 CIDR block.
ResourcePoolName	String	Alibaba_Cloud	The name of the IP address pool.
MaxResults	Integer	50	The number of entries returned per page.
NextToken	String	caeba0bbb2be03f84eb48b699f0a4883	The token that is used for the next query. If this parameter is not set, no subsequent requests are sent.
RequestId	String	365F4154-92F6-4AE4-92F8-7FF34B540710	The ID of the request.
TotalCount	Integer	100	The total number of IP addresses that are queried.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListIpGeolocations
&<Common request parameters>
```

Sample success responses

`XML` format

```
<ListIpGeolocationsResponse>
  <IpGeolocationModels>
    <IpGeolocationModel>
      <CityCode>HK</CityCode>
      <ResourcePoolName>Alibaba_Cloud</ResourcePoolName>
      <CountryCode>CN</CountryCode>
      <Ipv4Prefix>203.0.XX.XX/24</Ipv4Prefix>
    </IpGeolocationModel>
  </IpGeolocationModels>
  <TotalCount>100</TotalCount>
  <NextToken>caeba0bbb2be03f84eb48b699f0a4883</NextToken>
  <RequestId>365F4154-92F6-4AE4-92F8-7FF34B540710</RequestId>
  <MaxResults>50</MaxResults>
</ListIpGeolocationsResponse>
```

JSON **format**

```
{
  "ListIpGeolocationsResponse": {
    "IpGeolocationModels": {
      "IpGeolocationModel": {
        "CityCode": "HK",
        "ResourcePoolName": "Alibaba_Cloud",
        "CountryCode": "CN",
        "Ipv4Prefix": "203.0.XX.XX/24"
      }
    },
    "TotalCount": 100,
    "NextToken": "caeba0bbb2be03f84eb48b699f0a4883",
    "RequestId": "365F4154-92F6-4AE4-92F8-7FF34B540710",
    "MaxResults": 50
  }
}
```

Error codes

HttpCode	Error code	Error message	Description
400	OperationFailed.QueryIpPoolFailed	Failed to query IP resource pool.	The error message returned because the system failed to query the IP address pool.
400	OperationFailed.InvokeApi	Failed to invoke the API operation.	The error message returned because the system failed to call the API.
400	OperationFailed.InternalError	An internal error occurred.	The error message returned because an internal error occurred.
400	IllegalParam.Ipv4Prefix	The parameter Ipv4Prefix is invalid.	The error message returned because the specified IPv4 CIDR block is invalid.
400	IllegalParam.ResourcePoolName	The parameter ResourcePoolName is invalid.	The error message returned because the specified IP address pool is invalid.
400	OperationFailed.NoPermission	You are not authorized to call the API operation.	The error message returned because you are unauthorized to call the API.

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

4.13. DescribeEipGatewayInfo

Queries the gateway address and subnet mask of an Elastic IP address.

API description

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

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	DescribeEipGatewayInfo	The name of this action. Value: DescribeEipGatewayInfo .
InstanceId	String	Yes	eni-bp1d66qjxb3qoin3***	The ID of the secondary ENI associated with the Elastic IP address.
RegionId	String	Yes	cn-zhangjiakou	The ID of the region to which the Elastic IP address belongs. To query the region ID, call DescribeRegions .

Response parameters

Parameter	Type	Example value	Description
Code	String	200	The status code of the request.
EipInfos	Array		The details of the Elastic IP address.
EipInfo			The details of the Elastic IP address.
Ip	String	47.xx.xx.236	The IP address of the Elastic IP address.
IpGw	String	47.xx.xx.1	The gateway address of the Elastic IP address.
IpMask	String	255.255.255.0	The subnet mask of the Elastic IP address.
Message	String	successful	The message indicating whether the request is successful.

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=DescribeEipGatewayInfo
&InstanceId=eni-bp1d66qjxb3qoin3****
&RegionId=cn-zhangjiakou
&<CommonParameters>
```

Response example

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"
}
```

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.

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

4.14. DescribeEipMonitorData

Queries the monitoring data of an elastic IP address (EIP). You can query monitoring data within the last 30 days and specify up to 400 data points in each request.

Description

To improve user experience in querying monitoring data, we recommend that you call the DescribeMetricList API operation provided by CloudMonitor to query EIP monitoring data. For more information, see [DescribeMetricList](#) and [EIP monitoring data](#).

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	DescribeEipMonitorData	The operation that you want to perform. Set the value to DescribeEipMonitorData .
AllocationId	String	Yes	eip-2zeerraiwb7uj6idcfv****	The ID of the EIP.
EndTime	String	Yes	2020-01-05T03:05:10Z	The end of the time range to query. The time must be in UTC. Specify the time in the ISO 8601 standard in <code>YYYY-MM-DDThh:mm:ssZ</code> format. For example, <code>2013-01-10T12:00:00Z</code> specifies 20:00:00 on January 10, 2013 (UTC+8). If the value of seconds (ss) is not 00, the end time is automatically rounded up to the next minute.
StartTime	String	Yes	2020-01-05T01:05:05Z	The beginning of the time range to query. The time must be in UTC. Specify the time in the ISO 8601 standard in <code>YYYY-MM-DDThh:mm:ssZ</code> format. For example, <code>2013-01-10T12:00:00Z</code> specifies 20:00:00 on January 10, 2013 (UTC+8). If the value of seconds (ss) is not 00, the start time is automatically rounded up to the next minute.
RegionId	String	Yes	cn-hangzhou	The ID of the region to which the EIP belongs.

Parameter	Type	Required	Example	Description
Period	Integer	No	60	<p>The duration of a monitoring data entry. Valid values: 60 (default), 300, 900, and 3600. Unit: seconds.</p> <ul style="list-style-type: none"> If the value of $(\text{EndTime} - \text{StartTime}) / \text{Period}$ is greater than 200, a maximum of 200 monitoring data entries are returned at a time. If the value of $(\text{EndTime} - \text{StartTime}) / \text{Period}$ is less than or equal to 200, only the monitoring data collected between the start time and end time is returned.

Response parameters

Parameter	Type	Example	Description
EipMonitorData	Array of EipMonitorData		The detailed information about the monitoring data of the EIP.
EipMonitorData			
EipBandwidth	Integer	10	The average bandwidth value. This value is equal to $\text{EipFlow} / \text{Period}$. Unit: Byte/s. The default value of Period is 60 . Unit: seconds.
EipFlow	Integer	465	The sum of inbound and outbound traffic.
EipPackets	Integer	3434	The number of packets.
EipRX	Long	122	The inbound traffic. Unit: bytes.
EipTX	Long	343	The outbound bandwidth. Unit: bytes.
TimeStamp	String	2020-01-21T09:50:23Z	The timestamp of the monitoring data. The timestamp follows the ISO8601 standard. Example: <code>2020-01-21T09:50:23Z</code> .
RequestId	String	C8B26B44-0189-443E-9816-D951F59623A9	The ID of the request.

Examples

Sample requests

```

http(s)://[Endpoint]/?Action=DescribeEipMonitorData
&AllocationId=eip-2zeerraiwb7uj6idcfv****
&EndTime=2020-01-05T03:05:10Z
&StartTime=2020-01-05T01:05:05Z
&<Common request parameters>

```

Sample success responses

XML **format**

```

<DescribeEipMonitorDataResponse>
  <RequestId>C8B26B44-0189-443E-9816-D951F59623A9</RequestId>
  <EipMonitorDatas>
    <EipMonitorData>
      <EipPackets>3434</EipPackets>
      <EipBandwidth>10</EipBandwidth>
      <EipFlow>465</EipFlow>
      <EipTX>343</EipTX>
      <TimeStamp>2020-01-21T09:50:23Z</TimeStamp>
      <EipRX>122</EipRX>
    </EipMonitorData>
  </EipMonitorDatas>
</DescribeEipMonitorDataResponse>

```

JSON **format**

```

{
  "RequestId": "C8B26B44-0189-443E-9816-D951F59623A9",
  "EipMonitorDatas": {
    "EipMonitorData": {
      "EipPackets": 3434,
      "EipBandwidth": 10,
      "EipFlow": 465,
      "EipTX": 343,
      "TimeStamp": "2020-01-21T09:50:23Z",
      "EipRX": 122
    }
  }
}

```

Error codes

HttpCode	Error code	Error message	Description
404	InvalidIpInstanceId.NotFound	The specified Eip InstanceId does not exist in our records.	The error message returned because the specified EIP does not exist.
404	InvalidInstanceId.NotFound	The InstanceId provided does not exist in our records.	The error message returned because the specified Elastic Compute Service (ECS) instance does not exist in the virtual private cloud (VPC).
400	InvalidStartTime.Malformed	The specified parameter "StartTime" is not valid.	The error message returned because the value of the StartTime parameter is invalid.

HttpCode	Error code	Error message	Description
400	InvalidEndTime.Malformed	The specified parameter "EndTime" is not valid.	The error message returned because the value of the EndTime parameter is invalid.
400	InvalidPeriod.ValueNotSupported	The specified parameter "Period" is not valid.	The error message returned because the value of the Period parameter is invalid.
400	InvalidStartTime.TooEarly	The specified parameter "StartTime" is too early.	The error message returned because the value of the StartTime parameter is invalid.
400	InvalidAllocationId.NotFound	Specified allocation id is not found.	The error message returned because the specified EIP does not exist. Check whether the EIP is valid.
400	OperationDenied.TooManyDataQueried	Specified operation is denied as too many data to return.	The error message returned because the number of data entries to be returned has reached the upper limit.
404	Forbidden.RegionNotFound	Specified region is not found during access authentication.	The error message returned because the specified region does not exist. Check whether the specified region ID is valid.

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

4.15. DescribeHighDefinitionMonitorLogAttribute

Queries fine-grained monitoring configurations about an elastic IP address (EIP).

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	DescribeHighDefinitionMonitorLogAttribute	The operation that you want to perform. Set the value to DescribeHighDefinitionMonitorLogAttribute .
InstanceId	String	Yes	eip-wz9fi6qboho9fwgx7****	The ID of the fine-grained monitoring instance.

Parameter	Type	Required	Example	Description
RegionId	String	Yes	cn-hangzhou	The ID of the region where the instance is deployed. You can call the DescribeRegions operation to query the most recent region list.
InstanceType	String	No	EIP	The ID of the instance. Set the value to EIP .

Response parameters

Parameter	Type	Example	Description
InstanceId	String	eip-wz9fi6qboho9fwgx7**	The ID of the fine-grained monitoring instance.
InstanceType	String	EIP	The type of the monitoring instance that is queried. The value is set to EIP .
LogProject	String	hdmonitor-cn-shenzhen-1658206966225390	The name of the log project of Log Service.
LogStore	String	hdmonitor	The name of the Logstore of Log Service.
RequestId	String	54B48E3D-DF70-471B-AA93-08E683A1B457	The ID of the request.
Success	String	true	Indicates whether the operation is performed. Valid values: <ul style="list-style-type: none"> true: The operation is performed. false: The operation is not performed.

Examples

Sample requests

```
&<Common request parameters>
```

Sample success responses

```
XML format
```

```
<DescribeHighDefinitionMonitorLogAttributeResponse>
  <RequestId>54B48E3D-DF70-471B-AA93-08E683A1B457</RequestId>
  <LogStore>hdmonitor</LogStore>
  <InstanceId>eip-wz9fi6qboho9fwgx7****</InstanceId>
  <InstanceType>EIP</InstanceType>
  <LogProject>hdmonitor-cn-shenzhen-1658206966225390</LogProject>
  <Success>>true</Success>
</DescribeHighDefinitionMonitorLogAttributeResponse>
```

JSON format

```
{
  "RequestId": "54B48E3D-DF70-471B-AA93-08E683A1B457",
  "LogStore": "hdmonitor",
  "InstanceId": "eip-wz9fi6qboho9fwgx7****",
  "InstanceType": "EIP",
  "LogProject": "hdmonitor-cn-shenzhen-1658206966225390",
  "Success": true
}
```

Error codes

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

4.16. CreatePublicIpAddressPool

Creates an IP address pool.

Limits

Only users who have the required permissions can use the IP address pool feature of Elastic IP Address (EIP). To apply for the required permissions, [submit a ticket](#).

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	CreatePublicIpAddressPool	The operation that you want to perform. Set the value to CreatePublicIpAddressPool .

Parameter	Type	Required	Example	Description
isp	String	No	BGP	<p>The line type. Valid values:</p> <ul style="list-style-type: none"> • BGP (default): BGP (Multi-ISP) lines All regions support BGP (Multi-ISP) EIPs. • BGP_PRO: BGP (Multi-ISP) Pro lines Only the China (Hong Kong) region supports BGP (Multi-ISP) Pro EIPs. <p>For more information about BGP (Multi-ISP) and BGP (Multi-ISP) Pro, see EIP line types.</p> <p>If you are allowed to use single-ISP bandwidth, you can also choose one of the following values:</p> <ul style="list-style-type: none"> • ChinaTelecom: China Telecom • ChinaUnicom: China Unicom • ChinaMobile: China Mobile • ChinaTelecom_L2: China Telecom L2 • ChinaUnicom_L2: China Unicom L2 • ChinaMobile_L2: China Mobile L2
Name	String	No	AddressPoolName	<p>The name of the IP address pool.</p> <p>This parameter is optional. If you enter a name, the name must be 1 to 128 characters in length and can contain digits, periods (.), underscores (_), and hyphens (-). The name must start with a letter but cannot start with <code>http://</code> or <code>https://</code>.</p>
Description	String	No	AddressPoolDescription	<p>The description of the IP address pool.</p> <p>This parameter is optional. If you enter a description, the description must be 2 to 256 characters in length, and cannot start with <code>http://</code> or <code>https://</code>.</p>
ClientToken	String	No	02fb3da4-130e-11****	<p>The client token that is used to ensure the idempotence of the request.</p> <p>You can use the client to generate the value, but you must ensure that it is unique among different requests. ClientToken can contain only ASCII characters.</p>

Parameter	Type	Required	Example	Description
DryRun	Boolean	No	false	Specifies whether to check the request without performing the operation. Valid values: <ul style="list-style-type: none"> true: checks the request without performing the operation. The system checks the required parameters, request syntax, and limits. If the request fails the check, an error message is returned. If the request passes the check, the <code>DryRunOperation</code> error code is returned. false (default): sends the request. If the request passes the check, a 2xx HTTP status code is returned and the operation is performed.
RegionId	String	Yes	cn-chengdu	The ID of the region where you want to create the IP address pool.

Response parameters

Parameter	Type	Example	Description
PublicIpAddressPoolId	String	pipool-6wetvn6fumkgycsx***	The ID of the IP address pool.
RequestId	String	4EC47282-1B74-4534-BD0E-403F3EE64CAF	The ID of the request.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=CreatePublicIpAddressPool
&Isp=BGP
&Name=AddressPoolName
&Description=AddressPoolDescription
&ClientToken=02fb3da4-130e-11****
&DryRun=false
&RegionId=cn-chengdu
&Common request parameters
```

Sample success responses

XML format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<CreatePublicIpAddressPoolResponse>
  <PublicIpAddressPoolId>pipool-6wetvn6fumkgycsx***</PublicIpAddressPoolId>
  <RequestId>4EC47282-1B74-4534-BD0E-403F3EE64CAF</RequestId>
</CreatePublicIpAddressPoolResponse>
```

JSON format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "PublicIpAddressPoolId" : "pipool-6wetvn6fumkgycsx****",
  "RequestId" : "4EC47282-1B74-4534-BD0E-403F3EE64CAF"
}
```

Error codes

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

4.17. ListPublicIpAddressPools

Queries available IP address pools.

Limits

Only users who have the required permissions can use the IP address pool feature of Elastic IP Address (EIP). To apply for the required permissions, [submit a ticket](#).

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	ListPublicIpAddressPools	The operation that you want to perform. Set the value to ListPublicIpAddressPools .
Status	String	No	Created	The status of the IP address pool. Valid values: <ul style="list-style-type: none"> Created: available Deleting: being deleted Modifying: being modified
MaxResults	Integer	No	10	The maximum number of entries to return. Valid values: 10 to 100 . Default value: 10 .
NextToken	String	No	FFmyT070tTpLG6i3FmYAXGKpd****	The token that is used for the next query. Valid values: <ul style="list-style-type: none"> If this is your first query or no next query is to be sent, ignore this parameter. If a next query is to be sent, set the value to the value of NextToken that is returned from the last call.

Parameter	Type	Required	Example	Description
lsp	String	No	BGP	<p>The line type. Valid values:</p> <ul style="list-style-type: none"> • BGP (default): BGP (Multi-ISP) lines All regions support BGP (Multi-ISP) EIPs. • BGP_PRO: BGP (Multi-ISP) Pro lines Only the China (Hong Kong) region supports BGP (Multi-ISP) Pro EIPs. <p>For more information about BGP (Multi-ISP) and BGP (Multi-ISP) Pro, see EIP line types.</p> <p>If you are allowed to use single-ISP bandwidth, you can also choose one of the following values:</p> <ul style="list-style-type: none"> • ChinaTelecom: China Telecom • ChinaUnicom: China Unicom • ChinaMobile: China Mobile • ChinaTelecom_L2: China Telecom L2 • ChinaUnicom_L2: China Unicom L2 • ChinaMobile_L2: China Mobile L2
Name	String	No	AddressPoolName	<p>The name of the IP address pool.</p> <p>This parameter is optional. If you enter a name, the name must be 1 to 128 characters in length and can contain digits, periods (.), underscores (_), and hyphens (-). The name must start with a letter but cannot start with <code>http://</code> or <code>https://</code>.</p>
DryRun	Boolean	No	false	<p>Specifies whether to check the request without performing the operation. Valid values:</p> <ul style="list-style-type: none"> • true: checks the request without performing the operation. The system checks the required parameters, request syntax, and limits. If the request fails the check, an error message is returned. If the request passes the check, the <code>DryRunOperation</code> error code is returned. • false (default): sends the request. If the request passes the check, a 2xx HTTP status code is returned and the operation is performed.
RegionId	String	Yes	cn-chengdu	The ID of the region where you want to query IP address pools.
PublicIpAddresses.N	String	No	pipool-6wetvn6fumkgycssx****	The IDs of the IP address pools.

Response parameters

Parameter	Type	Example	Description
RequestId	String	4EC47282-1B74-4534-BD0E-403F3EE64CAF	The ID of the request.
NextToken	String	FFmyT070tTpLG6I3FmYAXGKpd****	The token that is used for the next query. Valid values: <ul style="list-style-type: none"> If the value of NextToken is not returned, it indicates that no next query is to be sent. If a value of NextToken is returned, the value is the token used for the next query.
MaxResults	Integer	10	The maximum number of entries returned. Valid values: 10 to 100 . Default value: 10 .
TotalCount	Integer	10	The total number of entries returned.
PublicIpAddressPoolList	Array of PublicIpAddressPool		The list of IP address pools.
PublicIpAddressPoolId	String	pipool-6wetvn6fumkgycssx****	The ID of the IP address pool.
RegionId	String	cn-chengdu	The region ID of the IP address pool.
CreationTime	String	2022-05-10T01:37:38Z	The time when the IP address pool was created. The time is displayed in <code>YYYY-MM-DDThh:mm:ssZ</code> format.
Isp	String	BGP	The line type. Valid values: <ul style="list-style-type: none"> BGP: BGP (Multi-ISP) lines All regions support BGP (Multi-ISP) EIPs. BGP_PRO: BGP (Multi-ISP) Pro lines Only the China (Hong Kong) region supports BGP (Multi-ISP) Pro EIPs. For more information about BGP (Multi-ISP) and BGP (Multi-ISP) Pro, see EIP line types . If you are allowed to use single-ISP bandwidth, you can also choose one of the following values: <ul style="list-style-type: none"> ChinaTelecom: China Telecom ChinaUnicom: China Unicom ChinaMobile: China Mobile ChinaTelecom_L2: China Telecom L2 ChinaUnicom_L2: China Unicom L2 ChinaMobile_L2: China Mobile L2

Parameter	Type	Example	Description
Name	String	AddressPoolName	The name of the IP address pool. This parameter is optional. If you enter a name, the name must be 1 to 128 characters in length and can contain digits, periods (.), underscores (_), and hyphens (-). The name must start with a letter but cannot start with <code>http://</code> or <code>https://</code> .
Status	String	Created	The status of the IP address pool. Valid values: <ul style="list-style-type: none"> • Created: available • Deleting: being deleted • Modifying: being modified
Description	String	AddressPoolDescription	The description of the IP address pool. This parameter is optional. If you enter a description, the description must be 2 to 256 characters in length, and cannot start with <code>http://</code> or <code>https://</code> .
TotalIpNum	Integer	100	The total number of IP addresses in the public IP address pool.
UsedIpNum	Integer	20	The number of occupied IP addresses in the public IP address pool.
IpAddressRemaining	Boolean	true	Indicates whether the IP address pool has idle IP addresses. Valid values: <ul style="list-style-type: none"> • true: yes • false: no
UserType	Boolean	admin	The user type. Valid values: <ul style="list-style-type: none"> • admin: administrator • user: an authorized user
PublicIpCidrBlockList	Array of PublicIpCidrBlock		The list of public IP addresses.
CidrBlock	String	47.0.XX.XX/24	The CIDR block.
Status	String	Created	The status of the CIDR block. Valid values: <ul style="list-style-type: none"> • Created: available • Deleting: being deleted • Modifying: being modified

Parameter	Type	Example	Description
TotalIpNum	Integer	20	The total number of IP addresses in the public CIDR block.
UsedIpNum	Integer	20	The number of occupied IP addresses in the public CIDR block.
CreationTime	String	2022-05-10T01:37:38Z	The time when the IP address pool was created. The time is displayed in <code>YYYY-MM-DDThh:mm:ssZ</code> format.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListPublicIpAddressPools
&PublicIpAddressPoolIds=["pippool-6wetvn6fumkgycsx****"]
&Status=Created
&MaxResults=10
&NextToken=FFmyT070tTpLG6I3FmYAXGKpd****
&Isp=BGP
&Name=AddressPoolName
&DryRun=false
&RegionId=cn-chengdu
&Common request parameters
```

Sample success responses

`XML` format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<ListPublicIpAddressPoolsResponse>
  <RequestId>4EC47282-1B74-4534-BD0E-403F3EE64CAF</RequestId>
  <NextToken>FFmyT070tTpLG6I3FmYAXGKpd****</NextToken>
  <MaxResults>10</MaxResults>
  <TotalCount>10</TotalCount>
  <PublicIpAddressPoolList>
    <PublicIpAddressPoolId>pippool-6wetvn6fumkgycss****</PublicIpAddressPoolId>
    <RegionId>cn-chengdu</RegionId>
    <CreationTime>2022-05-10T01:37:38Z</CreationTime>
    <Isp>BGP</Isp>
    <Name>AddressPoolName</Name>
    <Status>Created</Status>
    <Description>AddressPoolDescription</Description>
    <TotalIpNum>100</TotalIpNum>
    <UsedIpNum>20</UsedIpNum>
    <IpAddressRemaining>true</IpAddressRemaining>
    <UserType>>false</UserType>
    <PublicIpCidrBlockList>
      <CidrBlock>47.0.XX.XX/24</CidrBlock>
      <Status>Created</Status>
      <TotalIpNum>20</TotalIpNum>
      <UsedIpNum>20</UsedIpNum>
      <CreationTime>2022-05-10T01:37:38Z</CreationTime>
    </PublicIpCidrBlockList>
  </PublicIpAddressPoolList>
</ListPublicIpAddressPoolsResponse>
```

JSON **format**

```

HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "4EC47282-1B74-4534-BD0E-403F3EE64CAF",
  "NextToken" : "FFmyTO70tTpLG6I3FmYAXGKpd****",
  "MaxResults" : 10,
  "TotalCount" : 10,
  "PublicIpAddressPoolList" : [ {
    "PublicIpAddressPoolId" : "pipool-6wetvn6fumkgycsx****",
    "RegionId" : "cn-chengdu",
    "CreationTime" : "2022-05-10T01:37:38Z",
    "Isp" : "BGP",
    "Name" : "AddressPoolName",
    "Status" : "Created",
    "Description" : "AddressPoolDescription",
    "TotalIpNum" : 100,
    "UsedIpNum" : 20,
    "IpAddressRemaining" : true,
    "UserType" : false,
    "PublicIpCidrBlockList" : [ {
      "CidrBlock" : "47.0.XX.XX/24",
      "Status" : "Created",
      "TotalIpNum" : 20,
      "UsedIpNum" : 20,
      "CreationTime" : "2022-05-10T01:37:38Z"
    } ]
  } ]
} ]
}

```

Error codes

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

4.18. UpdatePublicIpAddressPoolAttribute

Modifies the attributes of an IP address pool.

Limits

Only users who have the required permissions can use the IP address pool feature of Elastic IP Address (EIP). To apply for the required permissions, [submit a ticket](#).

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	UpdatePublicIpAddressPoolAttribute	The operation that you want to perform. Set the value to UpdatePublicIpAddressPoolAttribute .

Parameter	Type	Required	Example	Description
PublicIpAddressPoolId	String	Yes	pippool-6wetvn6fumkgycssx****	The ID of the IP address pool.
Name	String	No	AddressPoolName	The name of the IP address pool. This parameter is optional. If you enter a name, the name must be 1 to 128 characters in length and can contain digits, periods (.), underscores (_), and hyphens (-). The name must start with a letter but cannot start with <code>http://</code> or <code>https://</code> .
Description	String	No	AddressPoolDescription	The description of the IP address pool. This parameter is optional. If you enter a description, the description must be 2 to 256 characters in length, and cannot start with <code>http://</code> or <code>https://</code> .
ClientToken	String	No	123e4567-e89b-12d3-a456-426655440000	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must ensure that it is unique among different requests. ClientToken can contain only ASCII characters.
DryRun	Boolean	No	false	Specifies whether to check the request without performing the operation. Valid values: <ul style="list-style-type: none"> true: checks the request without performing the operation. The system checks the required parameters, request syntax, and limits. If the request fails the check, an error message is returned. If the request passes the check, the <code>DryRunOperation</code> error code is returned. false (default): sends the request. If the request passes the check, a 2xx HTTP status code is returned and the operation is performed.
RegionId	String	Yes	cn-chengdu	The region ID of the IP address pool that you want to modify.

Response parameters

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

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=UpdatePublicIpAddressPoolAttribute
&PublicIpAddressPoolId=pippool-6wetvn6fumkgycssx****
&Name=AddressPoolName
&Description=AddressPoolDescription
&ClientToken=123e4567-e89b-12d3-a456-426655440000
&DryRun=false
&RegionId=cn-chengdu
&Common request parameters
```

Sample success responses

XML **format**

```
HTTP/1.1 200 OK
Content-Type:application/xml
<UpdatePublicIpAddressPoolAttributeResponse>
  <RequestId>4EC47282-1B74-4534-BD0E-403F3EE64CAF</RequestId>
</UpdatePublicIpAddressPoolAttributeResponse>
```

JSON **format**

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "4EC47282-1B74-4534-BD0E-403F3EE64CAF"
}
```

Error codes

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

4.19. DeletePublicIpAddressPool

Deletes an IP address pool.

Limits

Only users who have the required permissions can use the IP address pool feature of Elastic IP Address (EIP). To apply for the required permissions, [submit a ticket](#).

Prerequisites

Before you delete an IP address pool, make sure that no IP address in the pool is being used.

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
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Parameter	Type	Required	Example	Description
Action	String	Yes	DeletePublicIpAddressPool	The operation that you want to perform. Set the value to DeletePublicIpAddressPool .
PublicIpAddressPoolId	String	Yes	pippool-6wetvn6fumkgycssx****	The ID of the IP address pool.
ClientToken	String	No	0c593ea1-3bea-11e9-b96b-88e9fe60000	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must ensure that it is unique among different requests. ClientToken can contain only ASCII characters.
DryRun	Boolean	No	false	Specifies whether to check the request without performing the operation. Valid values: <ul style="list-style-type: none"> true: checks the request without performing the operation. The system checks the required parameters, request syntax, and limits. If the request fails the check, an error message is returned. If the request passes the check, the <code>DryRunOperation</code> error code is returned. false (default): sends the request. If the request passes the check, a 2xx HTTP status code is returned and the operation is performed.
RegionId	String	Yes	cn-chengdu	The ID of the region where you want to delete the IP address pool.

Response parameters

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

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DeletePublicIpAddressPool
&PublicIpAddressPoolId=pippool-6wetvn6fumkgycssx****
&ClientToken=0c593ea1-3bea-11e9-b96b-88e9fe6****
&DryRun=false
&RegionId=cn-chengdu
&Common request parameters
```

Sample success responses

XML format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DeletePublicIpAddressPoolResponse>
  <RequestId>4EC47282-1B74-4534-BD0E-403F3EE64CAF</RequestId>
</DeletePublicIpAddressPoolResponse>
```

JSON format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "4EC47282-1B74-4534-BD0E-403F3EE64CAF"
}
```

Error codes

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

4.20. AddPublicIpAddressPoolCidrBlock

Adds a CIDR block to an IP address pool.

Limits

- Only users who have the required permissions can use the IP address pool feature of Elastic IP Address (EIP). To apply for the required permissions, [submit a ticket](#).
- The CIDR block and the IP address pool must belong to the same region.
- The CIDR block and the IP address pool must use the same line type.

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	AddPublicIpAddressPoolCidrBlock	The operation that you want to perform. Set the value to AddPublicIpAddressPoolCidrBlock .
PublicIpAddressPoolId	String	Yes	pippool-6wetvn6fumkgycssx****	The ID of the IP address pool.
CidrBlock	String	Yes	47.0.XX.XX/24	The CIDR block.

Parameter	Type	Required	Example	Description
ClientToken	String	No	02fb3da4-130e-11****	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must ensure that it is unique among different requests. ClientToken can contain only ASCII characters.
DryRun	Boolean	No	false	Specifies whether to check the request without performing the operation. Valid values: <ul style="list-style-type: none"> true: checks the request without performing the operation. The system checks the required parameters, request syntax, and limits. If the request fails the check, an error message is returned. If the request passes the check, the <code>DryRunOperation</code> error code is returned. false (default): sends the request. If the request passes the check, a 2xx HTTP status code is returned and the operation is performed.
RegionId	String	Yes	cn-chengdu	The region ID of the IP address pool to which you want to add the CIDR block.

Response parameters

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

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=AddPublicIpAddressPoolCidrBlock
&PublicIpAddressPoolId=pippool-6wetvn6fumkgycssx****
&CidrBlock=47.0.XX.XX/24
&ClientToken=02fb3da4-130e-11****
&DryRun=false
&RegionId=cn-chengdu
&Common request parameters
```

Sample success responses

XML format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<AddPublicIpAddressPoolCidrBlockResponse>
  <RequestId>4EC47282-1B74-4534-BD0E-403F3EE64CAF</RequestId>
</AddPublicIpAddressPoolCidrBlockResponse>
```

JSON format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "4EC47282-1B74-4534-BD0E-403F3EE64CAF"
}
```

Error codes

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

4.21. ListPublicIpAddressPoolCidrBlocks

Queries CIDR blocks in an IP address pool.

Limits

Only users who have the required permissions can use the IP address pool feature of Elastic IP Address (EIP). To apply for the required permissions, [submit a ticket](#).

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	ListPublicIpAddressPoolCidrBlocks	The operation that you want to perform. Set the value to ListPublicIpAddressPoolCidrBlocks .
PublicIpAddressPoolId	String	Yes	pippool-6wetvn6fumkgycssx****	The ID of the IP address pool.
CidrBlock	String	No	47.0.XX.XX/24	The CIDR blocks.
MaxResults	Integer	No	10	The maximum number of entries to return. Valid values: 10 to 100 . Default value: 10 .
NextToken	String	No	FFmyTO70tTpLG6I3FmYAXGKpd****	The token that is used for the next query. Valid values: <ul style="list-style-type: none"> If this is your first query or no next query is to be sent, ignore this parameter. If a next query is to be sent, set the parameter to the value of NextToken that is returned from the last call.

Parameter	Type	Required	Example	Description
DryRun	Boolean	No	false	<p>Specifies whether to check the request without performing the operation. Valid values:</p> <ul style="list-style-type: none"> true: checks the request without performing the operation. The system checks the required parameters, request syntax, and limits. If the request fails the check, an error message is returned. If the request passes the check, the <code>DryRunOperation</code> error code is returned. false (default): sends the request. If the request passes the check, a 2xx HTTP status code is returned and the operation is performed.
RegionId	String	Yes	cn-chengdu	The region ID of the CIDR blocks.

Response parameters

Parameter	Type	Example	Description
RequestId	String	4EC47282-1B74-4534-BD0E-403F3EE64CAF	The ID of the request.
NextToken	String	FFmyT070tTpLG6l3FmYAXGKpd****	<p>The token that is used for the next query. Valid values:</p> <ul style="list-style-type: none"> If the value of NextToken is not returned, it indicates that no next query is to be sent. If a value of NextToken is returned, the value is the token used for the next query.
MaxResults	Integer	10	The maximum number of entries returned. Valid values: 10 to 100. Default value: 10.
TotalCount	Integer	10	The total number of entries returned.
PublicIpPoolCidrBlockList	Array of PublicIpPoolCidrBlock		The information about the CIDR blocks.
PublicIpAddressPoolId	String	pipool-6wetvn6fumkgycssx***	The ID of the IP address pool.
CidrBlock	String	47.0.XX.XX/24	The CIDR blocks.
CreationTime	String	2022-05-10T01:37:38Z	The time when the CIDR block was created. The time is displayed in <code>YYYY-MM-DDThh:mm:ssZ</code> format.

Parameter	Type	Example	Description
Status	String	Created	The status of the CIDR block in the IP address pool. Valid values: <ul style="list-style-type: none"> Created: available Deleting: being deleted Modifying: being modified
UsedIpNum	Integer	20	The total number of available IP addresses in the CIDR block.
TotalIpNum	Integer	20	The total number of occupied IP addresses in the CIDR block.

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=ListPublicIpAddressPoolCidrBlocks
&PublicIpAddressPoolId=pippool-6wetvn6fumkgycsx****
&CidrBlock=47.0.XX.XX/24
&MaxResults=10
&NextToken=FFmyT070tTpLG6I3FmYAXGKpd****
&DryRun=false
&RegionId=cn-chengdu
&Common request parameters
```

Sample success responses

XML **format**

```
HTTP/1.1 200 OK
Content-Type:application/xml
<ListPublicIpAddressPoolCidrBlocksResponse>
  <RequestId>4EC47282-1B74-4534-BD0E-403F3EE64CAF</RequestId>
  <NextToken>FFmyT070tTpLG6I3FmYAXGKpd****</NextToken>
  <MaxResults>10</MaxResults>
  <TotalCount>10</TotalCount>
  <PublicIpPoolCidrBlockList>
    <PublicIpAddressPoolId>pippool-6wetvn6fumkgycsx****</PublicIpAddressPoolId>
    <CidrBlock>47.0.XX.XX/24</CidrBlock>
    <CreationTime>2022-05-10T01:37:38Z</CreationTime>
    <Status>Created</Status>
    <UsedIpNum>20</UsedIpNum>
    <TotalIpNum>20</TotalIpNum>
  </PublicIpPoolCidrBlockList>
</ListPublicIpAddressPoolCidrBlocksResponse>
```

JSON **format**

```

HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "4EC47282-1B74-4534-BD0E-403F3EE64CAF",
  "NextToken" : "FFmyTO70tTpLG6I3FmYAXGKpd****",
  "MaxResults" : 10,
  "TotalCount" : 10,
  "PublicIpPoolCidrBlockList" : [ {
    "PublicIpAddressPoolId" : "pippool-6wetvn6fumkgycss****",
    "CidrBlock" : "47.0.XX.XX/24",
    "CreationTime" : "2022-05-10T01:37:38Z",
    "Status" : "Created",
    "UsedIpNum" : 20,
    "TotalIpNum" : 20
  } ]
}

```

Error codes

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

4.22. DeletePublicIpAddressPoolCidrBlock

Deletes a CIDR block from an IP address pool.

Limits

Only users who have the required permissions can use the IP address pool feature of Elastic IP Address (EIP). To apply for the required permissions, [submit a ticket](#).

Prerequisites

Before you delete a CIDR block, make sure that it is not being used.

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	DeletePublicIpAddressPoolCidrBlock	The operation that you want to perform. Set the value to DeletePublicIpAddressPoolCidrBlock .
PublicIpAddressPoolId	String	Yes	pippool-6wetvn6fumkgycss****	The ID of the IP address pool.
CidrBlock	String	Yes	47.0.XX.XX/24	The CIDR block.

Parameter	Type	Required	Example	Description
ClientToken	String	No	123e4567-e89b-12d3-a456-426655440000	The client token that is used to ensure the idempotence of the request. You can use the client to generate the value, but you must ensure that it is unique among different requests. ClientToken can contain only ASCII characters.
DryRun	Boolean	No	false	Specifies whether to check the request without performing the operation. Valid values: <ul style="list-style-type: none"> true: checks the request without performing the operation. The system checks the required parameters, request syntax, and limits. If the request fails the check, an error message is returned. If the request passes the check, the <code>DryRunOperation</code> error code is returned. false (default): sends the request. If the request passes the check, a 2xx HTTP status code is returned and the operation is performed.
RegionId	String	Yes	cn-chengdu	The region ID of the IP address pool from which you want to delete a CIDR block.

Response parameters

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

Examples

Sample requests

```
http(s)://[Endpoint]/?Action=DeletePublicIpAddressPoolCidrBlock
&PublicIpAddressPoolId=pippool-6wetvn6fumkgycsx****
&CidrBlock=47.0.XX.XX/24
&ClientToken=123e4567-e89b-12d3-a456-426655440000
&DryRun=false
&RegionId=cn-chengdu
&Common request parameters
```

Sample success responses

XML format

```
HTTP/1.1 200 OK
Content-Type:application/xml
<DeletePublicIpAddressPoolCidrBlockResponse>
  <RequestId>4EC47282-1B74-4534-BD0E-403F3EE64CAF</RequestId>
</DeletePublicIpAddressPoolCidrBlockResponse>
```

JSON format

```
HTTP/1.1 200 OK
Content-Type:application/json
{
  "RequestId" : "4EC47282-1B74-4534-BD0E-403F3EE64CAF"
}
```

Error codes

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