

Alibaba Cloud Express Connect

API reference

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Generic conventions

Table -1: Style conventions

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

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

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1 API overview

This topic lists available APIs of Express Connect.

Virtual Border Routers (VBRs)

| API | Description |
|---------------------------|---|
| #unique_4 | Creates a VBR. |
| #unique_5 | Queries one or more VBRs. |
| #unique_6 | Queries the VBRs associated with a physical connection , including the VBRs under the physical connection owner's account and other accounts. |
| #unique_7 | Modifies the configurations of a VBR. |
| #unique_8 | Recovers a VBR that is terminated. |
| #unique_9 | Terminates a VBR. |

Physical connections

| API | Description |
|----------------------------|--|
| #unique_10 | Applies for a physical connection. |
| #unique_11 | Cancels a physical connection. After a physical connection is cancelled, it enters the Canceled state. |
| #unique_12 | Deletes a physical connection. |
| #unique_13 | Queries one or more physical connections in a specified region. |
| #unique_14 | Enables a physical connection that is in the Confirmed state. After a physical connection is enabled, it enters the Enabled state. |
| #unique_15 | Modifies the configurations of a physical connection. |
| #unique_16 | Terminates a physical connection after the physical connection is enabled. |
| #unique_17 | Submits an application for the LOA. |
| #unique_18 | Reports information about the completed installation of the leased line. |
| #unique_19 | Creates an order for the resource occupation fee. |
| #unique_20 | Creates an order for the initial installation fee. |

| API | Description |
|------------|--|
| #unique_21 | Queries LOA information about a physical connection. |

2 Call APIs

Express Connect and VPC use the same service address (endpoint). This means that when you call Express Connect APIs, HTTP GET requests are sent to the API service address of Express Connect, and the system responds according to the parameters set in the request. Both the requests and responses are UTF-8 encoded.

Request syntax

Express Connect APIs use RPC style. To call Express Connect APIs, send HTTP GET requests.

The structure of an Express Connect API request is as follows:

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

where,

- **Endpoint** : The service address of Express Connect APIs is `vpc . aliyuncs . com` .
- **Action** : the name of the action. For example, if you need to query created Express Connect instances, the action is `DescribePhysicalConnections`.
- **Version** : the version of the API. The version of Express Connect APIs is `2016 - 04 - 28` .
- **Parameters** : the request parameters. Separate multiple parameters by using ampersands (&).

Request parameters include common parameters and API-specific parameters. Common parameters include API version and identity authentication information among other parameters. For more information, see [#unique_23](#).

The following is an example of calling `DescribePhysicalConnections` to query created physical connections.



Note:

Note that the following code has been edited to ease readability.

```
https :// vpc . aliyuncs . com /? Action = DescribePh ysicalConn  
ections  
& Format = xml  
& Version = 2016 - 04 - 28  
& Signature = xxxx % xxxx % 3D
```

```
& SignatureM ethod = HMAC - SHA1
& SignatureN once = 1521552885 2396
& SignatureV ersion = 1 . 0
& AccessKeyI d = key - test
& Timestamp = 2012 - 06 - 01T12 : 00 : 00Z
...
```

User authentication

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

For more information about the policies related to Express Connect APIs, see [#unique_24](#).

Request signature

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

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

A request in an API call is signed in the following format:

```
https://endpoint/?SignatureVersion= 1 . 0 &SignatureMethod= HMAC - SHA1
&Signature= XXXX % 3D & SignatureN once = 3ee8c1b8 - 83d3 - 44af -
a94f - 4e0ad82fd6 cf
```

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

```
http :// vpc . aliyuncs . com /? Action = DescribePh ysicalConn
ections
& Timestamp = 2016 - 05 - 23T12 : 46 : 24Z
& Format = XML
& AccessKeyI d = testid
& SignatureM ethod = HMAC - SHA1
& SignatureN once = 3ee8c1b8 - 83d3 - 44af - a94f - 4e0ad82fd6 cf
& Version = 2014 - 05 - 26
```

```
& SignatureVersion = 1.0
```

To generate the signature, follow these steps:

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

```
GET %2F&AccessKeyId%3Dtestid&Action%3DDescribePhysicalConnections&Format%3DXML&SignatureMethod%3DHMAC-SHA1&SignatureNonce%3D3ee8c1b8-83d3-44af-a94f-4e0ad82fd6cf&SignatureVersion%3D1.0&TimeStamp%3D2016-02-23T12%253A46%253A24Z&Version%3D2014-05-15
```

2. Calculate the HMAC value of the string.

Add an ampersand (&) after the AccessKeySecret to add the key of the HMAC value.

In this example, the key is `testsecret &`.

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

3. Add the signature to the request parameter.

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

3 Common parameters

Common request parameters

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

Table 3-1: Common request parameters

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

Common response parameters

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

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

- XML format

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

- JSON format

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

4 Physical connections

4.1 CreatePhysicalConnection

Applies for a physical connection.

After the physical connection application is approved, the status of the physical connection changes to Initial. At this stage, you need to instruct your service provider to start data center cable installation.

Note the following before you call this API:

- The number of physical connections that are not in the Enabled state must be no more than five.
- If a physical connection under your account has an overdue payment, you cannot apply for more physical connections.

Debug

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

Request parameters

| Parameter | Type | Required? | Example value | Description |
|---------------|--------|-----------|----------------------------------|---|
| Action | String | Yes | CreatePhysicalConnection | The name of this action. Value: CreatePhysicalConnection |
| AccessPointId | String | Yes | AccessPointId=ap-cn-beijing-ft-A | The ID of the access point used by the physical connection. To query the region ID, call DescribeRegions . |

| Parameter | Type | Required? | Example value | Description |
|--------------|--------|-----------|-----------------------|---|
| ClientToken | String | Yes | dgfdg12344ff | The client token. It is used to guarantee the idempotence of the request. The value of this parameter is generated by the client and is unique among different requests. It can contain up to 64 ASCII characters. |
| LineOperator | String | Yes | CT | The service provider that provides the leased line. Valid values: <ul style="list-style-type: none"> • CT: China Telecom • CU: China Unicom • CM: China Mobile • CO: Other service providers in Mainland China • Equinix: Equinix • Other: Other service providers outside Mainland China |
| PeerLocation | String | Yes | Zhejiang---vfjdbg_21e | The geographic location of the on-premises data center. |
| RegionId | String | Yes | cn-shanghai | The region of the physical connection. To query the region ID, call DescribeRegions . |
| CircuitCode | String | No | longtel001 | Optional. The leased line code provided by the service provider for the physical connection. |

| Parameter | Type | Required? | Example value | Description |
|-------------|--------|-----------|---|---|
| Description | String | No | The description of the physical connection. | Optional. The description of the physical connection. The description must be 2 to 256 characters in length. It must start with a letter or a Chinese character, and cannot start with <code>http://</code> or <code>https://</code> . |
| Name | String | No | test | Optional. The name of the physical connection. The name must be 2 and 128 characters in length and can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter or a Chinese character. It cannot start with <code>http://</code> or <code>https://</code> . |
| PortType | String | No | 1000Base-T | Optional. The port type of the physical connection. Valid values: <ul style="list-style-type: none"> • 100Base-T: 100M electrical port • 1000Base-T(default): 1 Gigabit electrical port • 1000Base-LX: 1 Gigabit single-mode optical port (10 km) • 0GBase-T: 10 Gigabit electrical port • GBase-LR: 10 Gigabit single-mode optical port (10 km) |

| Parameter | Type | Required ? | Example value | Description |
|-------------------------------|---------|---------------|---------------|---|
| RedundantPhysicalConnectionId | String | No | pc-119mfjzm7 | Optional. The ID of the redundant physical connection. The redundant physical connection must be in the Allocated, Confirmed, or Enabled state. |
| Type | String | No | VPC | Optional. The type of the physical connection. Default value: VPC |
| bandwidth | Integer | No | 10 | Optional. The peak bandwidth of the bandwidth package. Value range: 5 to 5000. Unit: Mbit/s |

Response parameters

| Parameter | Type | Example value | Description |
|----------------------|--------|--------------------------------------|------------------------------------|
| PhysicalConnectionId | String | vpc-bp12mw1f8k3jgygk9bmlj | The ID of the physical connection. |
| RequestId | String | 8A6A5EC5-6F6C-4906-9689-56ACE58A13E0 | The request ID. |

Examples

Request example

```

http ( s )://[ Endpoint ]/? Action = CreatePhysicalConnection
& AccessPointId = AccessPointId = ap - cn - beijing - ft - A
& ClientToken = dgfdg12344 ff
& LineOperator = CT
& PeerLocation = Zhejiang --- vfjdbg_21e
& RegionId = cn - shanghai
&< CommonParameters >

```

Response examples

XML format

```
< CreatePhysicalConnectionResponse >
  < RequestId > 8A6A5EC5 - 6F6C - 4906 - 9689 - 56ACE58A13 E0 "</
  RequestId >
  < PhysicalConnectionId > pc -*****</ PhysicalCo
  nnectionId >
</ CreatePhysicalConnectionResponse >
```

JSON format

```
{
  " RequestId ":" 8A6A5EC5 - 6F6C - 4906 - 9689 - 56ACE58A13 E0 ",
  " PhysicalConnectionId ":" pc -*****"
}
```

Error codes

| HTTP status code | Error code | Error message | Description |
|------------------|---|---|--|
| 400 | InvalidAccessPointId. NotEnabled | Invalid access point status . | The access point is invalid . |
| 400 | InvalidType. Malformed | The Type provided was invalid. | The value of the Type parameter is invalid. |
| 400 | InvalidPeerLocation. Malformed | The PeerLocation provided was invalid. | The value of the PeerLocation parameter is invalid. |
| 400 | InvalidLineOperator. Malformed | The LineOperator provided was invalid. | The specified value of the LineOperator parameter is invalid. |
| 400 | InvalidPortType. Malformed | The PortType provided was invalid. | The specified port type is invalid. |
| 400 | InvalidDescription. Malformed | The specified ? Description ? is not valid. | The description is invalid. The description must be 2 to 256 characters in length and cannot start with http:// or https://. |
| 400 | InvalidRedundantPhysicalConnectionId. NotFound | The RedundantPhysicalConnectionId does not found. | The specified redundant physical connection does not exist. |

| HTTP status code | Error code | Error message | Description |
|------------------|--|---|---|
| 400 | InvalidName.Malformed | The specified ? Name? is not valid. | The name is invalid. |
| 400 | QuotaExceeded.pConnPerAP | Physical connection count per ap quota exceed. | The physical connection quota of the access point is exceeded. |
| 400 | InvalidBandwidth | invalid physical connection bandwidth. | The bandwidth of the physical connection is invalid. |
| 400 | InvalidRedundantPhysicalConnection | redundant physical connection doesn't belong to current user. | The redundant physical connection does not belong to your account. |
| 400 | InvalidRedundantPhysicalConnectionStatus | invalid redundant physical connection status . | The status of the specified redundant physical connection is invalid. |
| 400 | InvalidCircuitCode.Malformed | circuitCode is illegal. | The specified value of the CircuitCode parameter is invalid. |
| 400 | QuotaExceeded.freePconnPerAP | free physical connections count exceeded. | The physical connection quota is exceeded. |

[See common error codes.](#)

4.2 CancelPhysicalConnection

Cancels a physical connection. After a physical connection is cancelled, it enters the Canceled state.

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

Debug

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

Request parameters

| Parameter | Type | Required? | Example value | Description |
|----------------------|--------|-----------|-------------------------------------|--|
| Action | String | Yes | CancelPhysicalConnection | The name of this action. Value: CancelPhysicalConnection |
| PhysicalConnectionId | String | Yes | pc-119mfjzm7 | The ID of the physical connection. |
| RegionId | String | Yes | cn-shanghai | The region to which the physical connection belongs. To query the region ID, call DescribeRegions . |
| ClientToken | String | No | 02fb3da4-130e-11e9-8e44-0016e04115b | Optional. The client token. It is used to guarantee the idempotence of the request. The value of this parameter is generated by the client and is unique among different requests. It can contain up to 64 ASCII characters. |

Response parameters

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

Examples

Request example

```
http(s)://[Endpoint]/? Action = CancelPhysicalConnection
& PhysicalConnectionId = pc - 119mfjzm7
& RegionId = cn - shanghai
```

```
&< CommonParameters >
```

Response examples

XML format

```
< CancelPhysicalConnectionResponse >
  < RequestId > BE36E95A - F83E - 4127 - A29E - F2F35D4C99 9A </
    RequestId >
</ CancelPhysicalConnectionResponse >
```

JSON format

```
{
  "RequestId ":" BE36E95A - F83E - 4127 - A29E - F2F35D4C99 9A "
}
```

Error codes

| HTTP status code | Error code | Error message | Description |
|------------------|--|--|--|
| 404 | InvalidPhysicalConnectionId. NotFound | The PhysicalConnectionId provided does not exist in our records. | The specified physical connection does not exist. |
| 400 | Forbidden. NotAllowed InState | The request does not allow in this state. | The status of the physical connection does not allow this request. |

[See common error codes.](#)

4.3 DescribePhysicalConnections

Queries physical connections in a specified region.

Debug

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

Request parameters

| Parameter | Type | Required? | Example value | Description |
|-------------|--------|-----------|-----------------------------|--|
| Action | String | Yes | DescribePhysicalConnections | The name of this action. Value: DescribePhysicalConnections |
| RegionId | String | Yes | cn-hangzhou | The region of the physical connection. To query the region ID, call DescribeRegions . |
| ClientToken | String | No | 23243242rggyt | Optional. The client token. It is used to guarantee the idempotence of the request. The value of this parameter is generated by the client and is unique among different requests. It can contain up to 64 ASCII characters. |

| Parameter | Type | Required ? | Example value | Description |
|---------------------------|------------|------------|---------------|--|
| Filter . N . Key | String | No | 1 | <p>Optional. The filter condition . Value range of N: 1 to 5. Supported filter conditions include:</p> <ul style="list-style-type: none"> · PhysicalConnectionId : the ID of the physical connection · AccessPointId: the ID of the access point · Type: the leased line type · LineOperator: the service provider of the physical connection · Spec: the specification of the physical connection · Status: the status of the physical connection · Name: the name of the physical connection <p>The relationship of multiple filter condition values is OR, which means that the corresponding physical connection is returned when any one of the specified values is matched. The relationship of multiple filter conditions is AND, which means a physical connection is returned in the query result only when it meets all the specified conditions.</p> |
| Filter . N . Value . N | RepeatList | No | 1 | <p>Optional. The value of the corresponding filter condition. Value range of N: 1 to 5</p> |

| Parameter | Type | Required ? | Example value | Description |
|------------------------|---------|------------|---------------|--|
| IncludeReservationData | Boolean | No | false | Optional. Indicates whether to return invalid orders. |
| PageNumber | Integer | No | 10 | Optional. The page number. Default value: 1 |
| PageSize | Integer | No | 1 | Optional. The number of rows per page. Maximum value: 50. Default value: 10 |

Response parameters

| Parameter | Type | Example value | Description |
|-----------------------|--------|---|---|
| PhysicalConnectionSet | | | The list of physical connections. |
| AccessPointId | String | eip-2zeerraiwb7uj6i0d0fo3 | The ID of the physical connection access point. |
| AdLocation | String | Room Ax-x, Building B, No. x of xxx Avenue, New York, US | The location of the physical connection device. |
| Bandwidth | Long | 10 | The bandwidth of the physical connection. |
| BusinessStatus | String | Normal | The payment status of the physical connection. Valid values: <ul style="list-style-type: none"> • Normal: Indicates that the payment is normal. • FinancialLocked: Indicates that the physical connection is locked due to overdue payments. • SecurityLocked: Indicates that the physical connection is locked due to security reasons. |

| Parameter | Type | Example value | Description |
|--------------------|--------|----------------------|--|
| ChargeType | String | Prepaid | The billing method of the physical connection |
| CircuitCode | String | longtel001 | The leased line code provided by the service provider for the physical connection. |
| CreationTime | String | 2017-06-08T12:20:55 | The time when the physical connection is established. |
| Description | String | Physical connections | The description of the physical connection. |
| EnabledTime | String | 2017-06-08T12:20:55 | The time when the physical connection is enabled. |
| EndTime | String | 2019-02-25T11:01:04Z | The time when the physical connection expires. |
| HasReservationData | String | true | Indicates whether subscription messages are received. |
| LineOperator | String | CT | The service provider of the leased line. Valid values: <ul style="list-style-type: none"> • CT: China Telecom • CU: China Unicom • CM: China Mobile • CO: Other Chinese service providers • Equinix: Equinix • Other: Other service providers outside Mainland China |
| LoaStatus | String | Available | The status of the LOA. |
| Name | String | name | The name of the physical connection. |

| Parameter | Type | Example value | Description |
|-------------------------------|--------|----------------------------|--|
| PeerLocation | String | Zhejiang --- vfjdbg_21e | The location of the on-premises data center. |
| PhysicalConnectionId | String | pc-119mfjzm7 | The ID of the physical connection. |
| PortNumber | String | 80 | The port number of the physical connection device. |
| PortType | String | 1000Base-T | The port type of the physical connection: <ul style="list-style-type: none"> • 100Base-T: 100M electrical ports • 1000Base-T (default value): 1 Gigabit electrical ports • 1000Base-LX: 1 Gigabit single-mode optical ports (10 km) • 10GBase-T: 10-GE electrical ports • 10GBase-LR: 10-GE single-mode optical ports (10 km) |
| RedundantPhysicalConnectionId | String | pc-119mfjzm7 | The ID of the redundant physical connection |
| ReservationActiveTime | String | 2019-02-25T11:01:04Z | The effective time of a renewal. |
| ReservationInternetChargeType | String | PayByBandwidth | The type of the renewal. |
| ReservationOrderType | String | RENEW | The type of the renewal order. |
| Spec | String | Large | The specification of the physical connection. |
| Spec | String | Large | The specification of the physical connection. |

| Parameter | Type | Example value | Description |
|------------|---------|---------------|---|
| Status | String | Initial | <p>The status of the physical connection. Valid values:</p> <ul style="list-style-type: none"> • Initial: Indicates that the physical connection application is being reviewed. • Approved: Indicates that the physical connection application is approved. • Allocating: Indicates that resources are being allocated. • Allocated: Indicates that cables are being installed at the data center. • Confirmed: Indicates that the physical connection is waiting for user confirmation. • Enabled: Indicates that the physical connection is enabled. • Rejected: Indicates that the physical connection application is rejected. • Canceled: Indicates that the physical connection is canceled. • Allocation Failed: Indicates that the resource allocation fails. • Terminated: Indicates that the physical connection is terminated. |
| Type | String | VPC | The type of the physical connection. Default value: VPC |
| TotalCount | Integer | 10 | The number of queried physical connections. |
| PageNumber | Integer | 10 | The current page number. |
| PageSize | Integer | 10 | The number of physical connections per page. |

| Parameter | Type | Example value | Description |
|-----------|--------|--------------------------------------|-----------------|
| RequestId | String | EEC8EAB1-F299-4F5C-8E54-0A3129164C27 | The request ID. |

Examples

Request example

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

Response examples

XML format

```
<DescribePhysicalConnectionsResponse>
  <PageNumber>1</PageNumber>
  <TotalCount>1</TotalCount>
  <PageSize>10</PageSize>
  <RequestId>7C07B0AF-4FC0-4BB2-9667-F75812824BCD</
  RequestId>
  <PhysicalConnectionSet>
    <PhysicalConnectionType>
      <Type>VPC</Type>
      <PhysicalConnectionId>pc-2zeoaxkq3jot5p71qcnuy</
  PhysicalConnectionId>
      <PeerLocation>XXX-XXBuidling--XXXCity</PeerLocation
  >
      <CreationTime>2017-12-13T02:28:42Z</CreationTime
  >
      <Name>TEST</Name>
      <Status>Enabled</Status>
      <AdLocation>XXX--CabinetXX-XXXXXRoomX XU</AdLocation
  >
      <EnabledTime>2017-12-18T04:01:30Z</EnabledTime
  >
      <BusinessStatus>Normal</BusinessStatus>
      <LineOperator>CT</LineOperator>
      <PortNumber>1/1/4</PortNumber>
      <AccessPointId>ap-cn-beijing-dx-A</AccessPoint
  Id>
      <PortType>100Base-T</PortType>
      <Bandwidth>2</Bandwidth>
    </PhysicalConnectionType>
  </PhysicalConnectionSet>
</DescribePhysicalConnectionsResponse>
```

JSON format

```
{
  "PageNumber": 1,
  "TotalCount": 1,
  "PageSize": 10,
  "RequestId": "7C07B0AF-4FC0-4BB2-9667-F75812824BCD",
```

```

" PhysicalCo nnectionSe t ":{
  " PhysicalCo nnectionTy pe ":[
    {
      " Type ":" VPC ",
      " PhysicalCo nnectionId ":" pc - 2zeoaxkq3j ot5p71qcnu y ",
      " PeerLocati on ":" XXX - XXBuilding -- XXXCity ",
      " CreationTi me ":" 2017 - 12 - 13T02 : 28 : 42Z ",
      " Name ":" TEST ",
      " Status ":" Enabled ",
      " AdLocation ":" XXX -- XX - CabinetXXU RoomXXXXX ",
      " EnabledTim e ":" 2017 - 12 - 18T04 : 01 : 30Z ",
      " BusinessSt atus ":" Normal ",
      " LineOperat or ":" CT ",
      " PortNumber ":" 1 / 1 / 4 ",
      " AccessPoin tId ":" ap - cn - beijing - dx - A ",
      " PortType ":" 100Base - T ",
      " Bandwidth ": 2
    }
  ]
}
}
}

```

Error codes

| HTTP status code | Error code | Error message | Description |
|------------------|--|---|----------------------------------|
| 404 | InvalidFilterKey .ValueNotSupported | Specified filter key is not supported: Filter.X.key | The filter key is not supported. |

[See common error codes.](#)

4.4 ModifyPhysicalConnectionAttribute

Modifies the configurations of a physical connection.

Before you call this API, note the following limits:

- You can only modify the configurations or redundant physical connection ID of a physical connection that is in the Initial or Rejected state.
- You cannot modify the configurations of a physical connection that is in the Canceled, Allocating, AllocationFailed or Terminated state.
- After you modify the configurations of a physical connection that is in the Rejected state, the physical connection enters the Initial state.

Debug

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

Request parameters

| Parameter | Type | Required? | Example value | Description |
|----------------------|--------|-----------|-----------------------------------|---|
| Action | String | Yes | ModifyPhysicalConnectionAttribute | The name of this action. Value: ModifyPhysicalConnectionAttribute |
| PhysicalConnectionId | String | Yes | pc-119mfjzm7 | The ID of the physical connection. |
| RegionId | String | Yes | cn-shanghai | The region of the physical connection. To query the region ID, call DescribeRegions . |
| CircuitCode | String | No | longtel001 | Optional. The leased line code provided by the service provider for the physical connection. |
| ClientToken | String | No | efefe566754h | Optional. The client token used to guarantee the idempotence of the request. The value of this parameter is generated by the client and is unique among different requests. It can contain up to 64 ASCII characters. |

| Parameter | Type | Required? | Example value | Description |
|--------------|--------|-----------|---|--|
| Description | String | No | The description of the physical connection. | Optional. The description of the physical connection. The description must be 2 to 256 characters in length. It must start with a letter or a Chinese character, and cannot start with <code>http://</code> or <code>https://</code> . |
| LineOperator | String | No | CT | Optional. The service provider that provides the leased line. Valid values: <ul style="list-style-type: none"> CT: China Telecom CU: China Unicom CM: China Mobile CO: Other Chinese service providers Equinix: Equinix Other: Other service providers outside Mainland China |
| Name | String | No | PC1 | Optional. The name of the physical connection. The name must be 2 and 128 characters in length and can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter or a Chinese character. It cannot start with <code>http://</code> or <code>https://</code> . |

| Parameter | Type | Required ? | Example value | Description |
|-------------------------------|---------|------------|------------------------|--|
| PeerLocation | String | No | Zhejiang ---vfjdbg_21e | The geographic location of the on-premises data center. |
| PortType | String | No | E1 - 2M | Optional. The port type of the physical connection. Valid values: <ul style="list-style-type: none"> • 100Base-T: 100M electrical ports • 1000Base-T (default): 1 Gigabit electrical ports • 1000Base-LX: 1 Gigabit single-mode optical ports (10 km) • 10GBase-T: 10G electrical ports • 10GBase-LR: 10G single-mode optical ports (10 km) |
| RedundantPhysicalConnectionId | String | No | pc-119mfjzm7 | Optional. The ID of the redundant physical connection. The redundant physical connection must be in the Allocated, Confirmed, or Enabled state. |
| bandwidth | Integer | No | 5 | Optional. The bandwidth of the physical connection. Value range: 2 to 10240. Unit: Mbit/s |

Response parameters

| Parameter | Type | Example value | Description |
|-----------|--------|--------------------------------------|-----------------|
| RequestId | String | 013EE132-A109-4247-91B0-099A8FF49AD7 | The request ID. |

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=ModifyPhysicalConnectionAttribute
&PhysicalConnectionId=pc-119mfjzm7
&RegionId=cn-shanghai
<CommonParameters>
```

Response examples

XML format

```
<ModifyPhysicalConnectionAttributeResponse>
  <RequestId>8A6A5EC5-6F6C-4906-9689-56ACE58A13E0</
  RequestId>
</ModifyPhysicalConnectionAttributeResponse>
```

JSON format

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

Error codes

| HTTP status code | Error code | Error message | Description |
|------------------|--------------------------------------|--|---|
| 404 | InvalidPhysicalConnectionId.NotFound | The PhysicalConnectionId provided does not exist in our records. | The specified physical connection does not exist. |
| 400 | InvalidLineOperator.Malformed | The LineOperator provided was invalid. | The specified value of the LineOperator parameter is invalid. |
| 400 | InvalidPeerLocation.Malformed | The PeerLocation provided was invalid. | The specified value of the PeerLocation parameter is invalid. |
| 400 | InvalidPortType.Malformed | The PortType provided was invalid. | The port type is invalid. |

| HTTP status code | Error code | Error message | Description |
|------------------|--|---|--|
| 400 | InvalidDescription.Malformed | The specified ? Description ? is not valid. | The description is invalid. The description must be 2 to 256 characters in length and cannot start with http:// or https://. |
| 400 | InvalidName.Malformed | The specified ? Name? is not valid. | The name is invalid. |
| 400 | InvalidStatus | invalid physical connection status. | The status of the physical connection is invalid. |
| 400 | InvalidBandwidth | invalid physical connection bandwidth. | The bandwidth of the physical connection is invalid. |
| 400 | InvalidRedundantPhysicalConnection | redundant physical connection doesn't belong to current user. | This redundant physical connection does not belong to your account. |
| 400 | InvalidRedundantPhysicalConnectionStatus | invalid redundant physical connection status . | The status of the redundant physical connection is invalid. |
| 400 | InvalidCircuitCode.Malformed | circuitCode is illegal. | The specified value of the CircuitCode parameter is invalid. |

[See common error codes.](#)

4.5 TerminatePhysicalConnection

Terminates a physical connection after the physical connection is enabled.

The physical connection changes to the Terminating state after this API is called and changes to the Terminated state after the termination is completed.

Note the following before you terminate a physical connection:

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

Debug

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

Request parameters

| Parameter | Type | Required? | Example value | Description |
|----------------------|--------|-----------|-------------------------------------|--|
| Action | String | Yes | TerminatePhysicalConnection | The name of this action. Value: TerminatePhysicalConnection |
| PhysicalConnectionId | String | Yes | pc-119mfjzm7 | The ID of the physical connection to be terminated. |
| RegionId | String | Yes | cn-hangzhou | The region of the physical connection. To query the region ID, call DescribeRegions . |
| ClientToken | String | No | 02fb3da4-130e-11e9-8e44-0016e04115b | Optional. The client token. It is used to guarantee the idempotence of the request. The value of this parameter is generated by the client and is unique among different requests. It can contain up to 64 ASCII characters. |

Response parameters

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

Examples

Request example

```
https :// vpc . aliyuncs . com /? Action = TerminateP hysicalCon
nection
& PhysicalCo nnectionId = pc - 119mfjzm7
& RegionId = cn - hangzhou
&< CommonPara meters >
```

Response examples

XML format

```
< TerminateP hysicalCon nectionRes ponse >
  < RequestId > 513E0A50 - 4F2D - 4CBE - BF35 - 40559DF65D 79 "
</ RequestId >
</ TerminateP hysicalCon nectionRes ponse >
```

JSON format

```
{
  " RequestId ":" 513E0A50 - 4F2D - 4CBE - BF35 - 40559DF65D 79 "
}
```

Error codes

| HTTP status code | Error code | Error message | Description |
|------------------|--|--|---|
| 404 | InvalidPhysicalConnectionId. NotFound | The PhysicalConnectionId provided does not exist in our records. | The specified physical connection does not exist. |
| 400 | Forbidden. NotAllowedInState | The request does not allow in this state. | The request cannot be processed because the status of the resource does not permit this action. |

[See common error codes.](#)

4.6 EnablePhysicalConnection

Enables a physical connection in the Confirmed status. After being enabled, the physical connection changes to the Enabled status.

Note the following before you call this action:

- You can only enable a physical connection in the Confirmed status.
- The physical connection changes to the Enabled status after being enabled.

Debug

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

Request parameters

| Parameter | Type | Required? | Example value | Description |
|----------------------|--------|-----------|-------------------------------------|---|
| Action | String | Yes | EnablePhysicalConnection | The name of this action. Value: EnablePhysicalConnection |
| PhysicalConnectionId | String | Yes | pc-119mfjzm7 | The ID of the physical connection. |
| RegionId | String | Yes | cn-shanghai | The region where the physical connection is located. To query the region ID, call DescribeRegions. |
| ClientToken | String | No | 02fb3da4-130e-11e9-8e44-0016e04115b | A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and must be unique. It must be 1 to 64 ASCII characters in length. |

Response parameters

| Parameter | Type | Example value | Description |
|-----------|--------|--|------------------------|
| RequestId | String | API-20365164-5b0d-460a-83c2-2189972b3349 | The ID of the request. |

Examples

Request example

```
https://vpc.aliyuncs.com/?Action=EnablePhysicalConnection
&PhysicalConnectionId=pc-119mfjzm7
&RegionId=cn-shanghai
&<CommonParameters>
```

Response example

• XML format

```
<EnablePhysicalConnectionResponse>
  <RequestId>0ED8D006-F706-4D23-88ED-E11ED28DCA C0</
  RequestId>
</EnablePhysicalConnectionResponse>
```

• JSON format

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

Error codes

| HTTP status code | Error code | Error message | Description |
|------------------|--|--|---|
| 404 | InvalidPhysicalConnectionId. NotFound | The PhysicalConnectionId provided does not exist in our records. | The specified physical connection does not exist. |
| 400 | Forbidden. NotAllowed InState | The request does not allow in this state. | The request cannot be processed because the status of the resource does not permit this action. |

[See common error codes](#)

4.7 DeletePhysicalConnection

Deletes a physical connection.



Note:

You can only delete a physical connection that is in the Rejected, Canceled, AllocationFailed, or Terminated state.

Debug

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

Request parameters

| Parameter | Type | Required? | Example value | Description |
|----------------------|--------|-----------|-------------------------------------|--|
| Action | String | Yes | DeletePhysicalConnection | The name of this action. Value: DeletePhysicalConnection |
| PhysicalConnectionId | String | Yes | pc-119mfjzm7 | The ID of the physical connection to be deleted. |
| RegionId | String | Yes | cn-shanghai | The region of the physical connection. To query the region ID, call DescribeRegions . |
| ClientToken | String | No | 02fb3da4-130e-11e9-8e44-0016e04115b | Optional. The client token. It is used to guarantee the idempotence of the request. The value of this parameter is generated by the client and is unique among different requests. It can contain up to 64 ASCII characters. |

| Parameter | Type | Required ? | Example value | Description |
|-----------|--------|---------------|---------------|---|
| UserCidr | String | No | 30.100.0.0/16 | Optional. The customer-side CIDR block. Separate multiple CIDR blocks by using commas (,). Up to three CIDR blocks are supported. |

Response parameters

| Parameter | Type | Example value | Description |
|-----------|--------|--------------------------------------|-----------------|
| RequestId | String | 2B3670CD-670E-4540-8C13-6DE929AEDD3B | The request ID. |

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = DeletePhysicalConnection
& PhysicalConnectionId = pc - 119mfjzm7
& RegionId = cn - shanghai
&< CommonParameters >
```

Response examples

XML format

```
< DeletePhysicalConnectionResponse >
  < RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 </
  RequestId >
</ DeletePhysicalConnectionResponse >
```

JSON format

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

Error codes

| HTTP status code | Error code | Error message | Description |
|------------------|--|--|---|
| 404 | InvalidPhysicalConnectionId. NotFound | The PhysicalConnectionId provided does not exist in our records. | The specified physical connection does not exist. |
| 400 | Forbidden. NotAllowedInState | The request does not allow in this state. | The request cannot be processed because the status of the resource does not permit this action. |
| 400 | InvalidPhysicalConnectionId. NotMatched | instance id not matched. | The specified physical connection ID is invalid. |
| 400 | Forbidden. VBRExists | physical connection owner's vbr still exists. | Virtual Border Routers (VBRs) related connections must be deleted. |
| 400 | Forbidden. VBRExists | vbr owner's vbr still exists . | VBRs associated with the physical connection must be deleted. |
| 400 | Forbidden. AssociateToVBR | The physical connection still associate to VBR. | The physical connection is associated with VBRs. |

[See common error codes.](#)

4.8 ApplyPhysicalConnectionLOA

Apply for the LOA.

Debug

Perform a [debug](#) in OpenAPI Explorer. We recommend that you use OpenAPI Explorer. By using OpenAPI Explorer, you can call APIs, generate SDK code examples automatically, and search APIs, allowing you to quickly and easily get started with using APIs on the cloud.

Request parameters

| Parameter | Type | Required? | Example value | Description |
|------------------|---------|-----------|-------------------------------------|---|
| Action | String | Yes | ApplyPhysicalConnectionLOA | The action to perform. Valid value: ApplyPhysicalConnectionLOA. |
| CompanyName | String | Yes | company | The name of the company that requires the physical connection. |
| ConstructionTime | String | Yes | 2019-02-28T16:00:00.000Z | The date and time when the data cable installation technician or representative will go to the installation site. |
| InstanceId | String | Yes | pc-bp1qrb3044eqixxxxxxxx | The instance ID of the physical connection interface. |
| LineType | String | Yes | SDH | The type of leased line. |
| PeerLocation | String | Yes | Hangzhou | The location where the leased line is deployed. |
| RegionId | String | Yes | cn-hangzhou | The ID of the region to which the physical connection interface belongs. |
| Si | String | Yes | Alibaba Cloud | The name of the installation company. |
| Bandwidth | Integer | No | 3 | Optional. The bandwidth value of the physical connection. |
| ClientToken | String | No | A47BD386-7FDE-4xxx4-8D22-C62xxxxxxx | Optional. The token used for client authentication. |

| Parameter | Type | Required ? | Example value | Description |
|--------------------------------|--------|------------|-----------------------|---|
| LineOperator | String | No | CU | Optional. The service provider that provides the leased line. |
| PMInfo . N . PMCertificateNo | String | No | 3210xxxxxx xxxxxxx | Optional. The license number of the certificate held by the data cable installation technician or representative. |
| PMInfo . N . PMCertificateType | String | No | IDCard | Optional. The type of the certificate that the data cable installation technician or representative holds. |
| PMInfo . N . PMContactInfo | String | No | 13200000000 | Optional. The contact information of the data cable installation technician or representative. |
| PMInfo . N . PMGender | String | No | Male | Optional. The gender of the data cable installation technician or representative. |
| PMInfo . N . PMName | String | No | Mike | Optional. The name of the data cable installation technician or representative. |

Response parameters

| Parameter | Type | Example value | Description |
|-----------|--------|--|------------------------|
| RequestId | String | A47BD386-7FDE -42C4-8D22- C6223D18AA1C | The ID of the request. |

Examples

Request example

```
http ( s )://[ Endpoint ]/? CompanyName = company
& Constructi onTime = 2019 - 02 - 28T16 : 00 : 00 . 000Z
& InstanceId = pc - bp1qrb3044 eqixxxxxxx x
& LineType = SDH
& PeerLocati on = Hangzhou
& RegionId = cn - hangzhou
& Si = Alibaba Cloud
&< CommonPara meters >
```

Response examples

XML format

```
< ApplyPhysi calConnect ionLOA >
  < code > 200 </ code >
  < httpStatus Code > 200 </ httpStatus Code >
  < message > successful </ message >
  < requestId > A47BD386 - 7FDE - 42C4 - 8D22 - C6223D18AA 1C </
requestId >
  < success > true </ success >
</ ApplyPhysi calConnect ionLOA >
```

JSON format

```
{
  " message ":" successful ",
  " httpStatus Code ": 200 ,
  " requestId ":" A47BD386 - 7FDE - 42C4 - 8D22 - C6223D18AA 1C ",
  " code ":" 200 ",
  " success ": true
}
```

Error codes

[Click here to view the error codes.](#)

4.9 CompletePhysicalConnectionLOA

Reports information about the completed installation of the leased line.

Debug

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

Request parameters

| Parameter | Type | Required ? | Example value | Description |
|-------------|--------|---------------|---------------------------------------|--|
| Action | String | Yes | CompletePhysicalConnectionLOA | The name of this action. Value: CompletePhysicalConnectionLOA |
| InstanceId | String | Yes | pc-bp10tvlnwkwxxxxxxxxxx | The instance ID of the physical connection. |
| LineCode | String | Yes | aaa111 | The code of the leased line. |
| LineLabel | String | Yes | bbb222 | The label numbers of cables at the installation site. |
| RegionId | String | Yes | cn-hangzhou | The region of the physical connection. |
| ClientToken | String | No | F8983C74-E068-4509-B442-89xxxxxC8F43B | Optional. The token used for client authentication. |

Response parameters

| Parameter | Type | Example value | Description |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | F8983C74-E068-4509-B442-89BD82C8F43B | The ID of the request. |

Examples

Request example

```

http ( s )://[ Endpoint ]/? InstanceId = pc - bp10tvlnw
kwxxxxxxxxxx xx
& LineCode = aaa111
& LineLabel = bbb222
& RegionId = cn - hangzhou

```

```
&< CommonParameters >
```

Response examples

XML format

```
< CompletePhysicalConnectionLOAResponse >
  < code > 200 </ code >
  < message > successful </ message >
  < requestId > 5FA3B04E - AEA0 - 4F89 - BF0D - 3FD71ED69B F7 </
  requestId >
  < success > true </ success >
</ CompletePhysicalConnectionLOAResponse >
```

JSON format

```
{
  "message": "successful",
  "requestId": "5FA3B04E - AEA0 - 4F89 - BF0D - 3FD71ED69B F7",
  "code": "200",
  "success": true
}
```

Error codes

[See common error codes..](#)

4.10 CreatePhysicalConnectionOccupancyOrder

Creates an order for the initial installation fee.

Debug

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

Request parameters

| Parameter | Type | Required? | Example value | Description |
|----------------------|--------|-----------|--|---|
| Action | String | Yes | CreatePhysicalConnectionOccupancyOrder | The name of this action. Value: CreatePhysicalConnectionOccupancyOrder |
| PhysicalConnectionId | String | Yes | pc-bp1hp0wr072f6ambni141 | The instance ID of the physical connection. |

| Parameter | Type | Required ? | Example value | Description |
|--------------------|---------|------------|--------------------------------------|--|
| RegionId | String | Yes | cn-hangzhou | The region of the physical connection. |
| AutoPay | Boolean | No | true | Optional. Indicates whether to pay automatically. Valid values: <ul style="list-style-type: none"> · true (default value): Automatic payment is enabled. Make sure that your account balance is sufficient. If the balance is insufficient, an abnormal order will be generated, which can only be voided. · false: Automatic payment is disabled. |
| ClientToken | String | No | CBCE910E-D396-4944-8764-B4047838B2D1 | Optional. The client token used for authentication. |
| InstanceChargeType | String | No | PostPaid | Optional. The billing method of the physical connection. Valid values: <ul style="list-style-type: none"> · PrePaid: Subscription. Make sure that your registered credit card is valid or you have sufficient balance in your PayPal account. · PostPaid (default): Pay-As-You-Go. |
| Period | Integer | No | 1 | Optional. The validity period of Subscription. |

| Parameter | Type | Required ? | Example value | Description |
|--------------|--------|---------------|---------------|--|
| PricingCycle | String | No | Month | Optional. The unit cycle of Subscription. <ul style="list-style-type: none"> Year Month |

Response parameters

| Parameter | Type | Example value | Description |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | CBCE910E-D396-4944-8764-B4047838B2D1 | The ID of the request. |

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = CreatePhysicalConnectionOccupancyOrder
& PhysicalConnectionId = pc - bp1hp0wr07 2f6ambni14 1
& RegionId = cn - hangzhou
&< CommonParameters >
```

Response examples

XML format

```
< CreatePhysicalConnectionOccupancyOrderResponse >
  < code > 200 </ code >
  < data >
    < orderId > 2031673097 40138 </ orderId >
  </ data >
  < httpStatusCode > 200 </ httpStatusCode >
  < message > successful </ message >
  < requestId > CBCE910E - D396 - 4944 - 8764 - B4047838B2 D1 </
requestId >
  < success > true </ success >
</ CreatePhysicalConnectionOccupancyOrderResponse >
```

JSON format

```
{
  "message ":" successful ",
  "httpStatusCode ": 200 ,
  "requestId ":" CBCE910E - D396 - 4944 - 8764 - B4047838B2 D1 ",
  "data ":{
    "orderId ": 2031673097 40138
```

```

},
" code ":" 200 ",
" success ": true
}

```

Error codes

| HTTP status code | Error code | Error message | Description |
|------------------|--------------------------------------|--|---|
| 404 | InvalidPhysicalConnectionId.NotFound | The PhysicalConnectionId provided does not exist in our records. | The specified physical connection does not exist. |
| 400 | Forbidden.NotAllowedInState | The request does not allow in this state. | The request cannot be processed because the status of the resource does not permit this action. |

See [common error codes](#).

4.11 CreatePhysicalConnectionSetupOrder

Creates an order for the resource occupation fee.

Debug

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

Request parameters

| Parameter | Type | Required? | Example value | Description |
|---------------|--------|-----------|------------------------------------|---|
| AccessPointId | String | Yes | ap-cn-beijing-ft-A | The ID of the access point. |
| Action | String | Yes | CreatePhysicalConnectionSetupOrder | The name of this action. Value: CreatePhysicalConnectionSetupOrder |

| Parameter | Type | Required? | Example value | Description |
|--------------|---------|-----------|--------------------------------------|--|
| LineOperator | String | Yes | CT | <p>The service provider that provides the leased line. Valid values:</p> <ul style="list-style-type: none"> • CT: China Telecom • CU: China Unicom • CM: China Mobile • CO: Other service providers in Mainland China • Equinix: Equinix • Other: Other service providers outside Mainland China |
| RegionId | String | Yes | cn-shanghai | <p>The region of the physical connection. To query the region ID, call DescribeRegions.</p> |
| AutoPay | Boolean | No | true | <p>Optional. Indicates whether to pay the fee automatically.</p> <p>Valid values: true false</p> |
| ClientToken | String | No | 318BB676-0A2B-43A0-9AD8-F1D34E93750F | <p>Optional. The token used for client authentication.</p> |

| Parameter | Type | Required ? | Example value | Description |
|-------------------------------|--------|---------------|-------------------------------|--|
| PortType | String | No | 100Base-T | Optional. The type of the physical connection port. Valid values: <ul style="list-style-type: none"> • 100Base-T: 100M electrical ports • 1000Base-T (default value): 1 Gigabit electrical ports • 1000Base-LX: 1 Gigabit single-mode optical ports (10 km) • 10GBase-T: 10GE electrical ports • 10GBase-LR: 10GE single-mode optical ports (10 km) |
| RedundantPhysicalConnectionId | String | No | pc-bp10zsv5nt pxxxxxxxxxxx | Optional. The ID of the redundant physical connection. Its status must be Allocated, Confirmed, or Enabled. |

Response parameters

| Parameter | Type | Example value | Description |
|-----------|--------|-----------------|----------------------|
| OrderId | String | 202844382740728 | The ID of the order. |

Examples

Request example

```

http ( s )://[ Endpoint ]/? AccessPointId = ap - cn - beijing - ft
- A
& LineOperator = CT
& RegionId = cn - shanghai
&< CommonParameters >

```

Response examples

XML format

```
< CreatePhysicalConnectionSetupOrderResponse >
  < code > 200 </ code >
  < data >
    < orderId > 2032554009 60138 </ orderId >
  </ data >
  < httpStatusCode > 200 </ httpStatusCode >
  < message > successful </ message >
  < requestId > AA874147 - 4A58 - 41D4 - 95E2 - F2FFDAF417 A6 </
requestId >
  < success > true </ success >
</ CreatePhysicalConnectionSetupOrderResponse >
```

JSON format

```
{
  " message ":" successful ",
  " httpStatusCode ": 200 ,
  " requestId ":" AA874147 - 4A58 - 41D4 - 95E2 - F2FFDAF417 A6 ",
  " data ":{
    " orderId ": 2032554009 60138
  },
  " code ":" 200 ",
  " success ": true
}
```

Error codes

[See common error codes..](#)

4.12 DescribePhysicalConnectionLOA

Queries LOA information about a physical connection.

Debug

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

Request parameters

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

| Parameter | Type | Required ? | Example value | Description |
|-------------|--------|---------------|--------------------------------------|---|
| InstanceId | String | Yes | pc-bp1ca4wca27xxxxxxxxx | The instance ID of the physical connection. |
| RegionId | String | Yes | cn-hangzhou | The region of the physical connection. |
| ClientToken | String | No | 318BB676-0A2B-43A0-9AD8-F1D34E93750F | Optional. The client token used for authentication. |

Response parameters

| Parameter | Type | Example value | Description |
|---------------------------|--------|-------------------------|---|
| PhysicalConnectionLOAType | | | The LOA information of the physical connection. |
| CompanyLocalizedName | String | company | The company name that you set when you registered your account. |
| CompanyName | String | test1234 | The name of the company that requires the leased line. |
| ConstructionTime | String | 2019-02-26T08:00:00Z | The time when the data center cable installation technician or representative will go to the installation site. |
| InstanceId | String | pc-bp1ca4wca27xxxxxxxxx | The instance ID of the physical connection. |
| LineCode | String | aaa111 | The code of the leased line. |
| LineLabel | String | bbb222 | The label numbers of the cables at the installation site. |

| Parameter | Type | Example value | Description |
|-------------------|--------|--|---|
| LineType | String | MSTP | The type of the physical connection <ul style="list-style-type: none"> · Valid values: <ul style="list-style-type: none"> · MSTP · Other · SDH · MPLSVPN · FIBRE |
| LoaUrl | String | http://pconn-loa.oss-cn-shenzhen.aliyuncs.com/1993847644011928_pc-bp1ca4wca27ertsucaxn0_cn-hangzhou-dg-a01.pdf?Expires=1551164196&OSSAccessKeyId=dCrRKgLiFLLHAo6k&Signature=d/w0BARgZ5uJHXODnjpr1oKIEC4%3D | The URL used to download the LOA file. |
| PMInfo | | | The information about the data center cable installation technician or representative. |
| PMCertificateNo | String | 12345671223 | The certificate or licence number of the data center cable installation technician or representative. |
| PMCertificateType | String | Other | The type of certificate or licence held by the data center cable installation technician or representative. |

| Parameter | Type | Example value | Description |
|---------------|--------|--------------------------------------|---|
| PMContactInfo | String | 18910010000 | The contact information of the data center cable installation technician or representative. |
| PMGender | String | Male | The gender of the data center cable installation technician or representative. |
| PMName | String | name | The name of the data center cable installation technician or representative. |
| SI | String | ctcu | The name of the data center cable installation company. |
| Status | String | Available | The status of the physical connection. |
| RequestId | String | 318BB676-0A2B-43A0-9AD8-F1D34E93750F | The ID of the request. |

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = DescribePhysicalConnectionLOA
& InstanceId = pc - bp1ca4wca2 7exxxxxxxxxx
& RegionId = cn - hangzhou
&< CommonParameters >
```

Response examples

XML format

```
< DescribePhysicalConnectionLOAResponse >
  < code > 200 </ code >
  < data >
    < companyName > test1234 </ companyName >
    < constructionTime > 2019 - 02 - 26T08 : 00 : 00Z </ constructionTime >
    < instanceId > pc - bp1ca4wca2 7ertsucaxn 0 </ instanceId >
    < LineType > MSTP </ lineType >
```

```

    < loaUrl > http :// pconn - loa . oss - cn - shenzhen . aliyuncs .
com / 1993847644 011928_pc - bp1ca4wca2 7ertsucaxn 0_cn - hangzhou
- dg - a01 . pdf ? Expires = 1551164196 & amp ; OSSAccessK eyId =
dCrRkGLiFL LHAo6k & amp ; Signature = d / w0BARgZ5uJ HXODnjpr1o
KIEC4 % 3D </ loaUrl >
    < pmInfo >
      < nextPMInde x > 1 </ nextPMInde x >
      < PmCertific ateNo > 1234567 </ pmCertific ateNo >
      < pmCertific ateType > Other </ pmCertific ateType >
      < pmContactI nfo > 1891001000 0 </ pmContactI nfo >
      < pmGender > Male </ pmGender >
      < pmName > test </ pmName >
    </ pmInfo >
    < si > ctcu </ si >
    < status > Available </ status >
  </ data >
  < message > successful </ message >
  < requestId > 318BB676 - 0A2B - 43A0 - 9AD8 - F1D34E9375 0F </
requestId >
  < success > true </ success >
</ DescribePh ysicalConn ectionLOAR esponse >

```

JSON format

```

{
  " message ":" successful ",
  " requestId ":" 318BB676 - 0A2B - 43A0 - 9AD8 - F1D34E9375 0F ",
  " data ":{
    " lineType ":" MSTP ",
    " status ":" Available ",
    " pmInfo ":[
      {
        " pmContactI nfo ":" 1891001000 0 ",
        " pmGender ":" Male ",
        " pmCertific ateNo ":" 1234567 ",
        " PmCertific ateType ":" Other ",
        " nextPMInde x ": 1 ,
        " pmName ":" test "
      }
    ],
    " instanceId ":" pc - bp1ca4wca2 7ertsucaxn 0 ",
    " constructi onTime ":" 2019 - 02 - 26T08 : 00 : 00Z ",
    " companyNam e ":" test1234 ",
    " si ":" ctcu ",
    " loaUrl ":" http :// pconn - loa . oss - cn - shenzhen . aliyuncs
. com / 1993847644 011928_pc - bp1ca4wca2 7ertsucaxn 0_cn -
hangzhou - dg - a01 . pdf ? Expires = 1551164196 & OSSAccessK eyId =
dCrRkGLiFL LHAo6k & Signature = d / w0BARgZ5uJ HXODnjpr1o KIEC4 %
3D "
  },
  " code ":" 200 ",
  " success ": true
}

```

Error codes

[See common error codes..](#)

4.13 CreatePhysicalConnectionOccupancyOrder

Creates an order for the initial installation fee.

Debug

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

Request parameters

| Parameter | Type | Required? | Example value | Description |
|----------------------|---------|-----------|--|--|
| Action | String | Yes | CreatePhysicalConnectionOccupancyOrder | The name of this action. Value: CreatePhysicalConnectionOccupancyOrder |
| PhysicalConnectionId | String | Yes | pc-bp1hp0wr072f6ambni141 | The instance ID of the physical connection. |
| RegionId | String | Yes | cn-hangzhou | The region of the physical connection. |
| AutoPay | Boolean | No | true | Optional. Indicates whether to pay automatically. Valid values: <ul style="list-style-type: none"> · true (default value): Automatic payment is enabled. Make sure that your account balance is sufficient. If the balance is insufficient, an abnormal order will be generated, which can only be voided. · false: Automatic payment is disabled. |
| ClientToken | String | No | CBCE910E-D396-4944-8764-B4047838B2D1 | Optional. The client token used for authentication. |

| Parameter | Type | Required ? | Example value | Description |
|--------------------|---------|------------|---------------|--|
| InstanceChargeType | String | No | PostPaid | Optional. The billing method of the physical connection. Valid values: <ul style="list-style-type: none"> PrePaid: Subscription. Make sure that your registered credit card is valid or you have sufficient balance in your PayPal account. PostPaid (default): Pay-As-You-Go. |
| Period | Integer | No | 1 | Optional. The validity period of Subscription. |
| PricingCycle | String | No | Month | Optional. The unit cycle of Subscription. <ul style="list-style-type: none"> Year Month |

Response parameters

| Parameter | Type | Example value | Description |
|-----------|--------|--------------------------------------|------------------------|
| RequestId | String | CBCE910E-D396-4944-8764-B4047838B2D1 | The ID of the request. |

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = CreatePhysicalConnectionOccupancyOrder
& PhysicalConnectionId = pc - bp1hp0wr07 2f6ambni14 1
& RegionId = cn - hangzhou
&< CommonParameters >
```

Response examples

XML format

```
< CreatePhysicalConnectionOccupancyOrderResponse >
  < code > 200 </ code >
  < data >
    < orderId > 2031673097 40138 </ orderId >
  </ data >
  < httpStatusCode > 200 </ httpStatusCode >
  < message > successful </ message >
  < requestId > CBCE910E - D396 - 4944 - 8764 - B4047838B2 D1 </
requestId >
  < success > true </ success >
</ CreatePhysicalConnectionOccupancyOrderResponse >
```

JSON format

```
{
  " message ":" successful ",
  " httpStatusCode ": 200 ,
  " requestId ":" CBCE910E - D396 - 4944 - 8764 - B4047838B2 D1 ",
  " data ":{
    " orderId ": 2031673097 40138
  },
  " code ":" 200 ",
  " success ": true
}
```

Error codes

| HTTP status code | Error code | Error message | Description |
|------------------|--------------------------------------|--|---|
| 404 | InvalidPhysicalConnectionId.NotFound | The PhysicalConnectionId provided does not exist in our records. | The specified physical connection does not exist. |
| 400 | Forbidden.NotAllowedInState | The request does not allow in this state. | The request cannot be processed because the status of the resource does not permit this action. |

[See common error codes..](#)

5 Express Cloud Connect

5.1 CreateExpressCloudConnection

Applies for the Express Cloud Connect (ECC) service.

Debug

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

Request parameters

| Parameter | Type | Required? | Example value | Description |
|--------------|---------|-----------|-------------------------------|---|
| Action | String | Yes | CreateExpressCloudConnection | The name of this action. Value: CreateExpressCloudConnection |
| Bandwidth | Integer | Yes | 2 | The bandwidth of the ECC instance. Unit: Mbit/s. Valid values: 2 4 6 8 10 20 50 100 200 500 1000 10000 40000 |
| IdcSP | String | Yes | CU | The service provider of the on-premises data center. |
| PeerLocation | String | Yes | 5/F, Building XX, XX District | The location of the on-premises data center. Enter a detailed location that includes which floor the on-premises data center is. |
| RegionId | String | Yes | cn-hangzhou | The ID of the region to which the ECC instance belongs. |

| Parameter | Type | Required ? | Example value | Description |
|-------------|--------|---------------|----------------|--|
| ContactMail | String | No | XX@example.com | Optional. The email of the person that applies for the ECC service. |
| ContactTel | String | No | 152XXXXXXXX | Optional. The telephone number of the person that applies for the ECC service. |
| Description | String | No | ECC | Optional. The description of the ECC instance. The description must be 2 to 256 characters in length and must start with an English letter or a Chinese character. It cannot start with <code>http://</code> or <code>https://</code> . |
| IDCardNo | String | No | 32 ***** | Optional. The ID card number of the person that applies for the ECC service. |
| Name | String | No | doctest | Optional. The name of the ECC instance. The name must be 2 and 128 characters in length and can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter or a Chinese character. It cannot start with <code>http://</code> or <code>https://</code> . |

| Parameter | Type | Required ? | Example value | Description |
|----------------|--------|------------|---------------|--|
| PeerCity | String | No | Hangzhou | Optional. The city where the on-premises data center is located. |
| PortType | String | No | 100Base-T | Optional. The port type of the physical connection. Valid values: <ul style="list-style-type: none"> 100Base-T: 100M electrical ports 1000Base-T (default): 1 Gigabit electrical ports 1000Base-LX: 1 Gigabit single-mode optical ports (10 km) 10GBase-T: 10G electrical ports 10GBase-LR: 10G single-mode optical ports (10 km) |
| RedundantEccId | String | No | ecc-d**** | Optional. The ID of the redundant ECC instance. |

Response parameters

| Parameter | Type | Example value | Description |
|-----------|--------|--------------------------------------|-------------------------------------|
| EccId | String | ecc-xxx***** | The ID of the created ECC instance. |
| RequestId | String | C004F022-1CC2-4958-9937-675513A2CD7E | The request ID. |

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = CreateExpressCloudConnection
```



```
&< CommonParameters >
```

Response examples

XML format

```
< CreateExpressCloudConnectionResponse >
  < EccId > ecc - bp1t9osmul n1vxft6gy 8 </ EccId >
  < RequestId > C004F022 - 1CC2 - 4958 - 9937 - 675513A2CD 7E </
  RequestId >
</ CreateExpressCloudConnectionResponse >
```

JSON format

```
{
  " EccId ":" ecc - bp1t9osmul n1vxft6gy 8 ",
  " RequestId ":" C004F022 - 1CC2 - 4958 - 9937 - 675513A2CD 7E "
}
```

Errors

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

5.2 ModifyExpressCloudConnectionAttribute

Modifies the attribute of an Express Cloud Connect (ECC) instance.

Debug

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

Request parameters

| Parameter | Type | Required? | Example value | Description |
|-----------|--------|-----------|---------------------------------------|--|
| Action | String | Yes | ModifyExpressCloudConnectionAttribute | The name of this action. Value: ModifyExpressCloudConnectionAttribute |
| EccId | String | Yes | ecc-bp1t9osmuln***** | The ID of the ECC instance. |
| RegionId | String | Yes | cn-hangzhou | The ID of the region to which the ECC instance belongs. |

| Parameter | Type | Required ? | Example value | Description |
|-------------|--------|---------------|---------------|--|
| Description | String | No | ECC | Optional. The description of the ECC instance. |
| Name | String | No | doctest | Optional. The name of the ECC instance. |

Response parameters

| Parameter | Type | Example value | Description |
|-----------|--------|--------------------------------------|-----------------|
| RequestId | String | E6385514-B0CC-48E3-B9F9-F7BFF64460A2 | The request ID. |

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = ModifyExpressCloudCo
nnectionAt tribute
& EccId = ecc - bpl1t9osmul n *****
& RegionId = cn - hangzhou
&< CommonParameters >
```

Response examples

XML format

```
< ModifyExpressCloudCo nnectionAt tributeRes ponse >
  < RequestId > E6385514 - B0CC - 48E3 - B9F9 - F7BFF64460 A2 </
  RequestId >
</ ModifyExpressCloudCo nnectionAt tributeRes ponse >
```

JSON format

```
{
  " RequestId ":" E6385514 - B0CC - 48E3 - B9F9 - F7BFF64460 A2 "
}
```

Errors

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

5.3 ModifyExpressCloudConnectionBandwidth

Modifies the bandwidth of an Express Cloud Connect (ECC) instance.

Debug

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

Request parameters

| Parameter | Type | Required? | Example value | Description |
|-----------|--------|-----------|---------------------------------------|--|
| Action | String | Yes | ModifyExpressCloudConnectionBandwidth | The name of this action. Value: ModifyExpressCloudConnectionBandwidth |
| EccId | String | Yes | ecc-xxxxxxxxxx | The ID of the ECC instance. |
| RegionId | String | Yes | cn-hangzhou | The ID of the region to which the ECC instance belongs. |
| Bandwidth | String | No | 2 | Optional. The bandwidth of the ECC instance. |

Response parameters

| Parameter | Type | Example value | Description |
|-----------|--------|--------------------------------------|-----------------|
| RequestId | String | E6385514-B0CC-48E3-B9F9-F7BFF64460A2 | The request ID. |

Examples

Request example

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

Response examples

XML format

```
< ModifyExpr essCloudCo nnectionBa ndwidthRes ponse >
  < RequestId > E6385514 - B0CC - 48E3 - B9F9 - F7BFF64460 A2 </
  RequestId >
  </ ModifyExpr essCloudCo nnectionBa ndwidthRes ponse >
```

JSON format

```
{
  " RequestId ":" E6385514 - B0CC - 48E3 - B9F9 - F7BFF64460 A2 "
```

Errors

| HTTP status code | Error code | Error message | Description |
|------------------|-----------------------|--|---|
| 403 | Forbbiden. SubUser | User not authorized to operate on the specified resource as your account is created by another user. | You are not authorized to operate on this resource . Please apply for the permission and try again later. |
| 403 | Forbidden | User not authorized to operate on the specified resource. | You are not authorized to operate on this resource . For more details, open a ticket. |

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

5.4 DescribeExpressCloudConnections

Queries the Express Cloud Connect (ECC) instances in a specified region.

Debug

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

Request parameters

| Parameter | Type | Required? | Example value | Description |
|------------------|--------|-----------|---------------------------------|---|
| Action | String | Yes | DescribeExpressCloudConnections | The name of this action. Value: DescribeExpressCloudConnections |
| RegionId | String | Yes | cn-hangzhou | The ID of the region to which the ECC instance belongs. |
| Filter . N . Key | String | No | 2 | <p>Optional. The filter condition.</p> <p>Value range of N: 1 to 5. The following filter conditions are supported:</p> <ul style="list-style-type: none"> · eccid: the ECC instance ID · bandwidth: the bandwidth of the ECC instance · Status: the status of the ECC instance · Name: the name of the ECC instance <p>The relationship of multiple filter condition values is OR, which means that an ECC instance is returned when it meets any of the specified values. The relationship of multiple filter conditions is AND, which means an ECC instance is returned in the query result only when it meets all the specified filter conditions.</p> |

| Parameter | Type | Required ? | Example value | Description |
|---------------------------|-------------|---------------|---------------|--|
| Filter . N . Value . N | RepeatLisNo | No | 3 | Optional. The value of the corresponding filter condition. Value range of N: 1 to 5 |
| PageNumber | Integer | No | 1 | Optional. The page number of the returned ECC instance list. Default value: 1 |
| PageSize | Integer | No | 10 | Optional. The number of entries per page in the case of a paged query result. Maximum value: 50. Default value: 10 |

Response parameters

| Parameter | Type | Example value | Description |
|-------------------------------|---------|-------------------------|--|
| ExpressCloudConnecti onSet | | | The details of the returned ECC instances. |
| Applicatio nBandwidth | String | 3 | The bandwidth set in the applicatio n for an ECC instance. |
| Applicatio nId | String | 1557820353 902123884 | The ID of the application. |
| Applicatio nStatus | String | Initial | The status of the application. |
| Applicatio nType | String | Create | The type of the application. |
| Bandwidth | Integer | 10 | The bandwidth of the ECC instance . Unit: Mbit/s. Valid values: 2 4 6 8 10 20 50 100 200 500 1000 10000 40000 |

| Parameter | Type | Example value | Description |
|----------------|---------|----------------------|--|
| BusinessStatus | String | Normal | The service status of the ECC instance. |
| ChargeType | String | Prepaid | The billing method of the ECC instance. |
| CircuitCode | String | longtel001 | The leased line code of the ECC instance. |
| ContactMail | String | XXX@example.com | The email of the person who applies for the ECC service. |
| ContactTel | String | 132***** | The telephone number of the person who applies for the ECC service. |
| Description | String | ecc | The description of the ECC instance. The description must be 2 to 256 characters in length and must start with an English letter or a Chinese character. It cannot start with <code>http://</code> or <code>https://</code> . |
| Distance | Integer | 100 | The distance from the on-premises data center to the access point. |
| EndTime | String | 2019-02-25T11:01:04Z | The time when the ECC instance expires. |
| GmtCreate | String | 2019-05-14T15:52Z | The time when the ECC instance is created. |
| GmtModify | String | 2019-05-14T16:52Z | The time when the ECC instance is modified. |

| Parameter | Type | Example value | Description |
|--------------------|--------|-----------------------------------|--|
| HasReservationData | String | true | Indicates whether a renewal is made for the ECC instance. |
| IDCardNo | String | 3212832010 02102345 | The ID card number of the person who applies for the ECC service. |
| IdcSP | String | CU | The service provider of the on-premises data center. |
| InstanceId | String | ecc-bp1t9osmul n1vxfpt6gy8 | The ID of the ECC instance. |
| Isp | String | CU | The service provider of the leased line. |
| Name | String | doctest | The name of the ECC instance. The name must be 2 and 128 characters in length and can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter or a Chinese character. It cannot start with <code>http://</code> or <code>https://</code> . |
| PeerCity | String | Hangzhou | The city where the on-premises data center is located. |
| PeerLocation | String | 5/F, XX Building , XX District | The location of the on-premises data center. The location is detailed and includes which floor the on-premises data center is. |

| Parameter | Type | Example value | Description |
|-------------------------------|--------|----------------------|--|
| PortType | String | 100Base-T | The port type of the physical connection. Valid values: <ul style="list-style-type: none"> 100Base-T: 100M electrical ports 1000Base-T (default): 1 Gigabit electrical ports 1000Base-LX: 1 Gigabit single-mode optical ports (10 km) 10GBase-T: 10G electrical ports 10GBase-LR: 10G single-mode optical ports (10 km) |
| RedundantEccId | String | ecc-xxxxxx | The ID of the redundant ECC instance. |
| ReservationActiveTime | String | 2019-02-25T11:01:04Z | The time when the renewal takes effect. |
| ReservationBandwidth | String | 200 | The bandwidth of the ECC instance after the renewal. |
| ReservationInternetChargeType | String | PayByBandwidth | The billing method of the ECC instance after the renewal. |
| ReservationOrderType | String | RENEW | The type of the renewal order. |
| Status | String | Initial | The status of the ECC instance. |
| Type | String | local | The type of the leased line. |
| VirtualBorderRouterModels | | | The details of Virtual Border Routers (VBRs). |
| AccessPointId | String | ap-xxxx | The access point. |
| InstanceId | String | vbr-xxxx | The instance ID of the VBR. |

| Parameter | Type | Example value | Description |
|----------------------|---------|--------------------------------------|---|
| PhysicalConnectionId | String | pc-xxxx | The instance ID of the physical connection. |
| PageNumber | Integer | 2 | The page number in the case of a paged query result. |
| PageSize | Integer | 3 | The number of entries per page in the case of a paged query result. |
| RequestId | String | 6BF11256-9725-4C07-95F9-EF0F32B687E8 | The ID of the request. |
| TotalCount | Integer | 10 | The total number of entries. |

Examples

Request example

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

Response examples

XML format

```
< DescribeExpressCloudConnection sResponse >
  < TotalCount > 1 </ TotalCount >
  < ExpressCloudConnectionSet >
    < ExpressCloudConnectionType >
      < HasReservationData > false </ HasReservationData >
      < Type ></ Type >
      < ServiceProvider ></ ServiceProvider >
      < InstanceId > ecc - bp1t9osmul n1vxfpt6gy 8 </ InstanceId >
    >
    < IdcSP > CU </ IdcSP >
    < ApplicationId > 1557820353 902123884 </ ApplicationId >
  >
  < BusinessStatus > Normal </ BusinessStatus >
  < ApplicationBandwidth > 3 </ ApplicationBandwidth >
  < ContactMail > XX @ example . com </ ContactMail >
  < ContactTel > 1322231212 1 </ ContactTel >
  < PortType > 100Base - T </ PortType >
  < Bandwidth > 3 </ Bandwidth >
  < GmtModify ></ GmtModify >
  < ChargeType ></ ChargeType >
  < ApplicationType > Create </ ApplicationType >
```

```

    < Descriptio n > ecc </ Descriptio n >
    < IDCardNo > 3212832010 02102345 </ IDCardNo >
    < PeerCity > Hangzhou </ PeerCity >
    < GmtCreate > 2019 - 05 - 14T15 : 52Z </ GmtCreate >
    < PeerLocati on > XXX - XX Building -- XX District </
PeerLocati on >
    < Name > doctest </ Name >
    < CircuitCod e ></ CircuitCod e >
    < Status > Initial </ Status >
    < RedundantE ccId ></ RedundantE ccId >
    < Isp ></ Isp >
    < Applicatio nStatus > Initial </ Applicatio nStatus >
    < VirtualBor derRouterM odels ></ VirtualBor derRouterM
odels >
    < EndTime ></ EndTime >
  </ ExpressClo udConnecti onType >
</ ExpressClo udConnecti onSet >
< PageSize > 10 </ PageSize >
< PageNo > 1 </ PageNo >
< RequestId > 6BF11256 - 9725 - 4C07 - 95F9 - EF0F32B687 E8 </
RequestId >
</ DescribeEx pressCloud Connecti onResponse >

```

JSON format

```

{
  " TotalCount ": 1 ,
  " PageSize ": 10 ,
  " ExpressClo udConnecti onSet ":{
    " ExpressClo udConnecti onType ":[
      {
        " HasReserva tionData ": false ,
        " ServicePro vider ":"",
        " Type ":"",
        " InstanceId ":" ecc - bp1t9osmul n1vxfpt6gy 8 ",
        " Applicatio nId ":" 1557820353 902123884 ",
        " IdcSP ":" CU ",
        " BusinessSt atus ":" Normal ",
        " Applicatio nBandwidth ": 3 ,
        " ContactMai l ":" XX @ example . com ",
        " ContactTel ":" 1322231212 1 ",
        " PortType ":" 100Base - T ",
        " GmtModify ":"",
        " Bandwidth ": 3 ,
        " ChargeType ":"",
        " Applicatio nType ":" Create ",
        " Descriptio n ":" ecc ",
        " IDCardNo ":" 3212832010 02102345 ",
        " PeerCity ":" Hangzhou ",
        " GmtCreate ":" 2019 - 05 - 14T15 : 52Z ",
        " PeerLocati on ": " Fifth Floor , XX Building , XX
District ",
        " Name ":" doctest ",
        " CircuitCod e ":"",
        " Status ":" Initial ",
        " RedundantE ccId ":"",
        " Isp ":"",
        " Applicatio nStatus ":" Initial ",
        " VirtualBor derRouterM odels ":{
          " VirtualBor derRouterM odel ":[
        ],
      },
      " EndTime "":""
    ]
  }
}

```

```
]
},
" RequestId ":" 6BF11256 - 9725 - 4C07 - 95F9 - EF0F32B687 E8 ",
" PageNo ": 1
}
```

Errors

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

6 VBR interfaces

6.1 CreateVirtualBorderRouter

Creates a Virtual Border Router (VBR).



If you create a VBR for the current account, the VBR enters the Enabled state after it is created. If you create a VBR for other accounts, the status of the created VBR is Unconfirmed. Confirmation from the other account is required.

Debug

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

Request parameters

| Parameter | Type | Required? | Example value | Description |
|----------------------|--------|-----------|---------------------------|---|
| Action | String | Yes | CreateVirtualBorderRouter | The name of this action. Value: CreateVirtualBorderRouter |
| PhysicalConnectionId | String | Yes | pc-xxxxxxxxx | The ID of the physical connection. |
| RegionId | String | Yes | cn-shanghai | The ID of the region to which the physical connection belongs. To query the region ID, call DescribeRegions . |

| Parameter | Type | Required? | Example value | Description |
|-------------|---------|-----------|-------------------------------------|---|
| VlanId | Integer | Yes | 10 | <p>The VLAN ID of the VBR. Value range: 1 to 2999</p> <p> Note: Only the owner of the physical connection can specify this parameter. The VLAN IDs of two VBRs in the same physical connection must be different.</p> |
| CircuitCode | String | No | longtel001 | <p>Optional. The leased line code provided by the service provider for the physical connection.</p> <p> Note: This parameter can only be specified by the owner of the physical connection.</p> |
| ClientToken | String | No | 02fb3da4-130e-11e9-8e44-0016e04115b | <p>Optional. The client token. It is used to guarantee the idempotence of requests. The value of this parameter is generated by the client and is unique among different requests. It can be 1 to 64 ASCII characters in length.</p> |

| Parameter | Type | Required? | Example value | Description |
|----------------|--------|-----------|-----------------------------|--|
| Description | String | No | The description of the VBR. | Optional. The description of the VBR. The description must be 2 to 256 characters in length. It must start with a letter or a Chinese character, and cannot start with <code>http://</code> or <code>https://</code> . |
| LocalGatewayIp | String | No | 116.62.222.28 | Optional. The Alibaba Cloud-side IP address used by the VBR. |
| Name | String | No | test | Optional. The name of the VBR. The name must be 2 and 128 characters in length and can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter or a Chinese character. It cannot start with <code>http://</code> or <code>https://</code> . |
| PeerGatewayIp | String | No | 116.62.222.28 | Optional. The customer-side IP address used by the VBR. Only the VBR owner can specify or modify this parameter. This parameter is required when you create a VBR for the physical connection owner, and it cannot be specified when you create a VBR for other accounts. |

| Parameter | Type | Required ? | Example value | Description |
|-------------------|--------|---------------|-----------------|--|
| PeeringSubnetMask | String | No | 255.255.255.252 | Optional. The subnet mask for the Alibaba Cloud-side IP address and the customer-side IP address. The two IP addresses must be in the same subnet. |
| VbrOwnerId | Long | No | 10 | Optional. The account ID of the VBR owner. The default value is the account ID of the current user, namely the owner of the physical connection. |

Response parameters

| Parameter | Type | Example value | Description |
|-----------|--------|--------------------------------------|--------------------|
| VbrId | String | vbr-bp1jcg5cmxjbl9xgc58bw | The ID of the VBR. |
| RequestId | String | 4EC47282-1B74-4534-BD0E-403F3EE64CAF | The request ID. |

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = CreateVirtualBorderRouter
& PhysicalConnectionId = pc - xxxxxxxxx
& RegionId = cn - shanghai
& VlanId = 10
&< CommonParameters >
```

Response examples

XML format

```
< CreateVirtualBorderRouterResponse >
  < RequestId > 980960B0 - 2969 - 40BF - 8542 - EBB34FD358 AB </
  RequestId >
  < VbrId > vbr - 2zecmmvg5g vu8i4telkh w </ VbrId >
```



```
</ CreateRouteInterfaceResponse >
```

JSON format

```
{
  "CreateRouteInterfaceResponse":{
    "RequestId":"980960B0-2969-40BF-8542-EBB34FD358AB",
    "VbrId":"vbr-2zeczmmvg5g-vu8i4telkh-w"
  }
}
```

Error codes

| HTTP status code | Error code | Error message | Description |
|------------------|--|---|---|
| 404 | InvalidRegionId.NotFound | The specified RegionId is not found. | The specified region ID is invalid. Please check if the cloud service is available in the specified region. |
| 400 | InvalidPhysicalConnectionId.NotFound | The specified PhysicalConnectionId is not found. | The specified physical connection ID is invalid. |
| 400 | InvalidVlanId.Used | The specified VlanId has been used. | The specified VLAN is already occupied. |
| 400 | MissingParameter | The input parameter 'PhysicalConnectionId' that is mandatory for processing this request is not supplied. | The PhysicalConnectionId parameter must be specified. |
| 400 | InvalidPhysicalConnectionId.NotEnabled | The specified PhysicalConnectionId is not in Enabled state. | The status of the specified physical connection does not permit this operation. |
| 404 | InvalidVbrOwnerId.NotFound | The specified VbrOwnerId is not valid. | The value of the VbrOwnerId parameter is invalid. |
| 400 | InvalidVlanId.Malformed | The specified VlanId is not valid. | The value of the VlanId parameter is invalid. |
| 400 | InvalidCircuitCode.Malformed | The specified CircuitCode is not valid. | The specified value of the CircuitCode parameter is invalid. |

| HTTP status code | Error code | Error message | Description |
|------------------|---|--|--|
| 400 | MissingParameter | The input parameter 'LocalGatewayIp' that is mandatory for processing this request is not supplied. | The LocalGatewayIp parameter must be specified. |
| 400 | InvalidLocalGatewayIp.Malformed | The specified LocalGatewayIp is not valid. | The IP address of the local gateway is invalid. |
| 400 | MissingParameter | The input parameter 'PeerGatewayIp' that is mandatory for processing this request is not supplied. | The PeerGatewayIp parameter must be specified. |
| 400 | MissingParameter | The input parameter 'PeeringSubnetMask' that is mandatory for processing this request is not supplied. | The PeeringSubnetMask parameter must be specified. |
| 400 | InvalidPeeringSubnetMask.Malformed | The specified PeeringSubnetMask is not valid. | The specified value of the PeeringSubnetMask parameter is invalid. |
| 403 | Forbidden.LocalGatewayIpNotAllowedByCaller | The caller is not allowed to specify the LocalGatewayIp parameter. | You are not allowed to specify the LocalGatewayIp parameter. |
| 403 | Forbidden.PeerGatewayIpNotAllowedByCaller | The caller is not allowed to specify the PeerGatewayIp parameter. | You are not allowed to specify the PeerGatewayIp parameter. |
| 403 | Forbidden.PeeringSubnetMaskNotAllowedByCaller | The caller is not allowed to specify the PeeringSubnetMask parameter. | You are not allowed to specify the PeeringSubnetMask parameter. |
| 403 | Forbidden.NameNotAllowedByCaller | The caller is not allowed to specify the Name parameter. | You are not allowed to specify the Name parameter. |

| HTTP status code | Error code | Error message | Description |
|------------------|---|--|--|
| 403 | Forbidden. DescriptionNotAllowedByCaller | The caller is not allowed to specify the Description parameter. | You are not allowed to specify the Description parameter. |
| 400 | InvalidName. Malformed | The specified ? Name? is not valid. | The specified name is invalid. |
| 400 | InvalidDescription. Malformed | The specified ? Description? is not valid. | The description is invalid. The description must be 2 to 256 characters in length. It cannot start with http:// or https://. |
| 400 | QuotaExceeded. vbrPerpConn | Virtual boarder router per PhysicalConnection quota exceed. | The VBR quota for the physical connection is exceeded. |
| 400 | QuotaExceeded. freevbr | Free virtual boarder router quota exceed. | The VBR quota is exceeded. |
| 400 | InvalidIp. NotSameSubnet | Local gateway ip and peer gateway ip are not in the same subnet. | The local gateway IP address and the peer gateway IP address are not in the same subnet. |
| 404 | CROSS_BID. FORBIDDEN | Create VBR across bid is illegal | You cannot create a VBR for a user of another site. |

[See common error codes.](#)

6.2 CreateVirtualBorderRouter



Creates a Virtual Border Router (VBR).

If you create a VBR for the current account, the VBR enters the Enabled state after it is created. If you create a VBR for other accounts, the status of the created VBR is Unconfirmed. Confirmation from the other account is required.

Debug

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

Request parameters

| Parameter | Type | Required? | Example value | Description |
|----------------------|---------|-----------|---------------------------|--|
| Action | String | Yes | CreateVirtualBorderRouter | The name of this action. Value: CreateVirtualBorderRouter |
| PhysicalConnectionId | String | Yes | pc-xxxxxxxx | The ID of the physical connection. |
| RegionId | String | Yes | cn-shanghai | The ID of the region to which the physical connection belongs. To query the region ID, call DescribeRegions . |
| VlanId | Integer | Yes | 10 | The VLAN ID of the VBR. Value range: 1 to 2999  Note: Only the owner of the physical connection can specify this parameter. The VLAN IDs of two VBRs in the same physical connection must be different. |
| CircuitCode | String | No | longtel001 | Optional. The leased line code provided by the service provider for the physical connection.  Note: This parameter can only be specified by the owner of the physical connection. |

| Parameter | Type | Required? | Example value | Description |
|----------------|--------|-----------|-------------------------------------|--|
| ClientToken | String | No | 02fb3da4-130e-11e9-8e44-0016e04115b | Optional. The client token. It is used to guarantee the idempotence of requests. The value of this parameter is generated by the client and is unique among different requests. It can be 1 to 64 ASCII characters in length. |
| Description | String | No | The description of the VBR. | Optional. The description of the VBR. The description must be 2 to 256 characters in length. It must start with a letter or a Chinese character, and cannot start with <code>http://</code> or <code>https://</code> . |
| LocalGatewayIp | String | No | 116.62.222.28 | Optional. The Alibaba Cloud-side IP address used by the VBR. |
| Name | String | No | test | Optional. The name of the VBR. The name must be 2 and 128 characters in length and can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter or a Chinese character. It cannot start with <code>http://</code> or <code>https://</code> . |

| Parameter | Type | Required ? | Example value | Description |
|-------------------|--------|------------|-----------------|---|
| PeerGatewayIp | String | No | 116.62.222.28 | Optional. The customer-side IP address used by the VBR. Only the VBR owner can specify or modify this parameter. This parameter is required when you create a VBR for the physical connection owner, and it cannot be specified when you create a VBR for other accounts. |
| PeeringSubnetMask | String | No | 255.255.255.252 | Optional. The subnet mask for the Alibaba Cloud-side IP address and the customer-side IP address. The two IP addresses must be in the same subnet. |
| VbrOwnerId | Long | No | 10 | Optional. The account ID of the VBR owner. The default value is the account ID of the current user, namely the owner of the physical connection. |

Response parameters

| Parameter | Type | Example value | Description |
|-----------|--------|--------------------------------------|--------------------|
| VbrId | String | vbr-bp1jcg5cmxjbl9xgc58bw | The ID of the VBR. |
| RequestId | String | 4EC47282-1B74-4534-BD0E-403F3EE64CAF | The request ID. |

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = CreateVirtualBorderRouter
& PhysicalConnectionId = pc - xxxxxxxx
& RegionId = cn - shanghai
& VlanId = 10
&< CommonParameters >
```

Response examples

XML format

```
< CreateVirtualBorderRouterResponse >
  < RequestId > 980960B0 - 2969 - 40BF - 8542 - EBB34FD358 AB </
  RequestId >
  < VbrId > vbr - 2zecmmvg5g - vu8i4telkh w </ VbrId >
</ CreateVirtualBorderRouterResponse >
```

JSON format

```
{
  " CreateVirtualBorderRouterResponse ":{
    " RequestId ":" 980960B0 - 2969 - 40BF - 8542 - EBB34FD358 AB ",
    " VbrId ":" vbr - 2zecmmvg5g - vu8i4telkh w "
  }
}
```

Error codes

| HTTP status code | Error code | Error message | Description |
|------------------|--------------------------------------|--|---|
| 404 | InvalidRegionId.NotFound | The specified RegionId is not found. | The specified region ID is invalid. Please check if the cloud service is available in the specified region. |
| 400 | InvalidPhysicalConnectionId.NotFound | The specified PhysicalConnectionId is not found. | The specified physical connection ID is invalid. |
| 400 | InvalidVlanId.Used | The specified VlanId has been used. | The specified VLAN is already occupied. |

| HTTP status code | Error code | Error message | Description |
|------------------|--|---|---|
| 400 | MissingParameter | The input parameter 'PhysicalConnectionId' that is mandatory for processing this request is not supplied. | The PhysicalConnectionId parameter must be specified. |
| 400 | InvalidPhysicalConnectionId. NotEnabled | The specified PhysicalConnectionId is not in Enabled state. | The status of the specified physical connection does not permit this operation. |
| 404 | InvalidVbrOwnerId. NotFound | The specified VbrOwnerId is not valid. | The value of the VbrOwnerId parameter is invalid. |
| 400 | InvalidVlanId. Malformed | The specified VlanId is not valid. | The value of the VlanId parameter is invalid. |
| 400 | InvalidCircuitCode. Malformed | The specified CircuitCode is not valid. | The specified value of the CircuitCode parameter is invalid. |
| 400 | MissingParameter | The input parameter 'LocalGatewayIp' that is mandatory for processing this request is not supplied. | The LocalGatewayIp parameter must be specified. |
| 400 | InvalidLocalGatewayIp. Malformed | The specified LocalGatewayIp is not valid. | The IP address of the local gateway is invalid. |
| 400 | MissingParameter | The input parameter 'PeerGatewayIp' that is mandatory for processing this request is not supplied. | The PeerGatewayIp parameter must be specified. |
| 400 | MissingParameter | The input parameter 'PeeringSubnetMask' that is mandatory for processing this request is not supplied. | The PeeringSubnetMask parameter must be specified. |

| HTTP status code | Error code | Error message | Description |
|------------------|---|---|--|
| 400 | InvalidPeeringSubnetMask.Malformed | The specified PeeringSubnetMask is not valid. | The specified value of the PeeringSubnetMask parameter is invalid. |
| 403 | Forbidden.LocalGatewayIpNotAllowedByCaller | The caller is not allowed to specify the LocalGatewayIp parameter. | You are not allowed to specify the LocalGatewayIp parameter. |
| 403 | Forbidden.PeerGatewayIpNotAllowedByCaller | The caller is not allowed to specify the PeerGatewayIp parameter. | You are not allowed to specify the PeerGatewayIp parameter. |
| 403 | Forbidden.PeeringSubnetMaskNotAllowedByCaller | The caller is not allowed to specify the PeeringSubnetMask parameter. | You are not allowed to specify the PeeringSubnetMask parameter. |
| 403 | Forbidden.NameNotAllowedByCaller | The caller is not allowed to specify the Name parameter. | You are not allowed to specify the Name parameter. |
| 403 | Forbidden.DescriptionNotAllowedByCaller | The caller is not allowed to specify the Description parameter. | You are not allowed to specify the Description parameter. |
| 400 | InvalidName.Malformed | The specified ? Name? is not valid. | The specified name is invalid. |
| 400 | InvalidDescription.Malformed | The specified ? Description? is not valid. | The description is invalid. The description must be 2 to 256 characters in length. It cannot start with http:// or https://. |
| 400 | QuotaExceeded.vbrPerpConn | Virtual boarder router per PhysicalConnection quota exceed. | The VBR quota for the physical connection is exceeded. |
| 400 | QuotaExceeded.freevbr | Free virtual boarder router quota exceed. | The VBR quota is exceeded. |

| HTTP status code | Error code | Error message | Description |
|------------------|-----------------------------|--|--|
| 400 | InvalidIp. NotSameSubnet | Local gateway ip and peer gateway ip are not in the same subnet. | The local gateway IP address and the peer gateway IP address are not in the same subnet. |
| 404 | CROSS_BID. FORBIDDEN | Create VBR across bid is illegal | You cannot create a VBR for a user of another site. |

See [common error codes](#).

6.3 DeleteVirtualBorderRouter

Deletes a Virtual Border Router (VBR).

Note the following before you delete a VBR:

- You must delete all router interfaces on the VBR.
- You can only delete a VBR that is in the Unconfirmed, Enabled, or Terminated state
-
- If the VBR you want to delete is under another Alibaba Cloud account, the VBR must be in the Unconfirmed state.

Debug

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

Request parameters

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

| Parameter | Type | Required ? | Example value | Description |
|-------------|--------|---------------|-------------------------------------|--|
| RegionId | String | Yes | cn-shanghai | The ID of the region to which the VBR belongs. To query the region ID, call DescribeRegions . |
| VbrId | String | Yes | vbr-bp12mw1f8k3jgygk9bmlj | The ID of the VBR. |
| ClientToken | String | No | 02fb3da4-130e-11e9-8e44-0016e04115b | Optional. The client token. It is used to guarantee the idempotence of the request. The value of this parameter is generated by the client and is unique among all requests. It can contain up to 64 ASCII characters. |

Response parameters

| Parameter | Type | Example value | Description |
|-----------|--------|--------------------------------------|-----------------|
| RequestId | String | F8BF7D24-F3EB-4E23-9208-B77C6EB78E75 | The request ID. |

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = DeleteVirtualBorderRouter
& RegionId = cn - shanghai
& VbrId = vbr - bp12mw1f8k3jgygk9bmlj
&< CommonParameters >
```

Response examples

XML format

```
< DeleteVirtualBorderRouterResponse >
```

```
< RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 </
  RequestId >
</ DeleteVirtualBorderRouterResponse >
```

JSON format

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

Error codes

| HTTP status code | Error code | Error message | Description |
|------------------|---|--|---|
| 404 | InvalidVbrId.NotFound | The specified VirtualBorderRouter does not exist in our records. | The specified VBR does not exist. |
| 400 | InvalidOperation.RouterInterfaceNotDeleted | The specified VirtualBorderRouter still has routerInterface. | The specified VBR has associated router interfaces. |
| 400 | InvalidOperation.OperationNotAllowedInState | The specified VirtualBorderRouter is in invalid state. | The status of the specified VBR does not permit this operation. |
| 403 | Forbidden.OperationNotAllowedByUser | The caller is not allowed to delete the specified VirtualBorderRouter. | You are not allowed to delete the specified VBR. |
| 403 | Forbidden.MultiVlanRi | Multiple vlan router interfaces are found. | Multiple VLAN router interfaces exist. |
| 403 | Forbidden.NoRiFound | No vlan router interfaces are found. | No VLAN router interface is available. |
| 400 | InvalidStatus.NotAllowed | The virtual border has been associated by physicalConnection. | The VBR is already associated with a physical connection. |

[See common error codes.](#)

6.4 DescribeVirtualBorderRouters

Queries one or more Virtual Border Routers (VBRs).

Debug

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

Request parameters

| Parameter | Type | Required? | Example value | Description |
|------------------------|------------|-----------|------------------------------|---|
| Action | String | Yes | DescribeVirtualBorderRouters | The name of this action. Value: DescribeVirtualBorderRouters |
| RegionId | String | Yes | cn-shanghai | The ID of the region to which the VBR belongs. To query the region ID, call DescribeRegions . |
| Filter . N . Key | String | No | 1 | Optional. The filter key. Value range of N: 1 to 5 |
| Filter . N . Value . N | RepeatList | No | 1 | Optional. The value of the filter key. Value range of N: 1 to 5. |
| PageNumber | Integer | No | 10 | Optional. The page number. Default value: 1 |
| PageSize | Integer | No | 1 | Optional. The number of rows per page for a paged query. Maximum value: 50. Default value: 10 |

Response parameters

| Parameter | Type | Example value | Description |
|-------------------------------|--------|--------------------------|--|
| VirtualBorderRouterSet | | | The list of VBRs. |
| AccessPointId | String | ap-cn-kojok1xxxxxxxxx | The ID of the physical connection access point. |
| ActivationTime | String | 2017-06-08T12:20:55 | The time when the VBR is activated for the first time. |
| AssociatedCens | | | The associated CEN instances. |
| CenId | String | cen-kojok19xxxx xxxxx | The ID of the CEN instance. |
| CenOwnerId | Long | 1086496381 294461 | The UID of the account to which the CEN instance belongs. |
| CenStatus | String | Attached | The status of the CEN instance. |
| AssociatedPhysicalConnections | | | The associated physical connections. |
| CircuitCode | String | 12 | The leased line code provided by the service provider for the physical connection. |
| LocalGatewayIp | String | 116.62.xx.xx | The Alibaba Cloud-side IP address used by the VBR. |
| PeerGatewayIp | String | 116.62.xx.xx | The customer-side IP address used by the VBR. |
| PeeringSubnetMask | String | 255.255.255.252 | The subnet mask of the Alibaba Cloud-side IP address and customer-side IP address. |

| Parameter | Type | Example value | Description |
|----------------------------------|--------|-----------------------------|---|
| PhysicalConnectionBusinessStatus | String | Normal | The service status of the physical connection. |
| PhysicalConnectionId | String | pc-119mfjzm7xxxxxxx | The ID of the physical connection. |
| PhysicalConnectionOwnerUid | String | qfrgrgs | The UID of the owner of the physical connection. |
| PhysicalConnectionStatus | String | Normal | The status of the physical connection. |
| VlanId | String | 0 | The VLAN ID of the VBR. |
| VlanInterfaceId | String | ri-kojok19x3j0q6kxxxxxxxxxx | The ID of the physical connection interface. This interface can be used as the next hop of routes on the VBR. |
| CircuitCode | String | longtel001 | The leased line code provided by the service provider for the physical connection. |
| CreateTime | String | 2017-06-08T12:20:55 | The time when the VBR is created. |
| Description | String | VBR | The description of the VBR. |
| DetectMultiplier | Long | 3 | The multiplier of the detection time. Specifically, the maximum number of discarded connection packets that the receiver allows from the sender. Value range: 3 to 10 |
| LocalGatewayIp | String | 116.62.xx.xx | The Alibaba Cloud-side IP address used by the VBR. |

| Parameter | Type | Example value | Description |
|----------------------------------|--------|---------------------|---|
| MinRxInterval | Long | 100 | The time interval between two consecutive BFD packets that are received. Value range: 200 to 1000. Unit: ms |
| MinTxInterval | Long | 100 | The time interval between two consecutive BFD packets that are sent. Value range: 200 to 1000. Unit: ms |
| Name | String | test | The name of the VBR. |
| PeerGatewayIp | String | 116.62.xx.xx | The customer-side IP address used by the VBR. |
| PeeringSubnetMask | String | 255.255.255.252 | The subnet mask of the Alibaba Cloud-side IP address and the customer-side IP address. |
| PhysicalConnectionBusinessStatus | String | Normal | The service status of the physical connection. |
| PhysicalConnectionId | String | pc-119mfjzm7xxxxxxx | The ID of the physical connection to which the VBR belongs. |
| PhysicalConnectionOwnerId | String | usdgbh123fvfgf | The UID of the owner of the physical connection. |
| PhysicalConnectionStatus | String | Normal | The status of the physical connection. |
| RecoveryTime | String | 2017-06-08T12:20:55 | The most recent time when the VBR is recovered from the Terminated state to the Active state. |

| Parameter | Type | Example value | Description |
|-----------------|---------|------------------------------|--|
| RouteTableId | String | rtb-bp1nxxxxxx xxxxxxxxxx | The ID of the route table of the VBR. |
| Status | String | active | <p>The status of the physical connection:</p> <ul style="list-style-type: none"> • Initial: Indicates that the physical connection is being applied. • Approved: Indicates that the physical connection application is approved. • Allocating: Indicates that resources are being allocated. • Allocated: Indicates that cables are being installed at the data center. • Confirmed: Indicates that the physical connection is waiting for user confirmation. • Enabled: Indicates that the physical connection is enabled. • Rejected: Indicates that the physical connection application is rejected. • Canceled: Indicates that the physical connection is canceled. • Allocation Failed: Indicates that the resource allocation fails. • Terminated: Indicates that the physical connection is terminated. |
| TerminationTime | String | 2017-06-08T12:20:55 | The most recent time when the VBR is terminated. |
| VbrId | String | vbr-kojok19xxx xxxxxx | The ID of the VBR. |
| VlanId | Integer | 10 | The VLAN ID of the VBR. |

| Parameter | Type | Example value | Description |
|-----------------|---------|--------------------------------------|--|
| VlanInterfaceId | String | ri-2zeo3xzyf38r4xxxxxxxx | The ID of the router interface of the VBR. |
| TotalCount | Integer | 10 | The number of queried VBRs. |
| PageNumber | Integer | 10 | The current page number. |
| PageSize | Integer | 10 | The number of VBRs per page. |
| RequestId | String | DE77A7F3-3B74-41C0-A5BC-CAFD188C28B6 | The request ID. |

Examples

Request example

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

Response examples

XML format

```
< DescribeVirtualBorderRoutersResponse >
  < RequestId > AE65530E - 8436 - 4FB1 - 8217 - DCD35712AC 89 </
  RequestId >
  < PageNumber > 1 </ PageNumber >
  < VirtualBorderRouterSet >
    < VirtualBorderRouterType >
      < LocalGatewayIp > 10 . 1 . xx . xx </ LocalGatewayIp >
      < PeerGatewayIp > 10 . 2 . xx . xx </ PeerGatewayIp >
      < PhysicalConnectionOwnerUid > 123157908X XXXXXXX </
  PhysicalConnectionOwnerUid >
      < VlanId > 10 </ VlanId >
      < PhysicalConnectionStatus > Enabled </ PhysicalCo
  nnectionStatus >
      < PhysicalConnectionId > pc - 2zeoaxkq3j otxxxxxxxx </
  PhysicalConnectionId >
      < RouteTableId > vtb - 2ze9hmd6yo fwvxxxxxxxx x </
  RouteTableId >
      < PeeringSubnetMask > 255 . 0 . 0 . 0 </ PeeringSubnetMask >
      < CreationTime > 2018 - 03 - 06T11 : 16 : 34Z </ CreationTi
  me >
      < ActivationTime > 2018 - 03 - 06T11 : 16 : 34Z </ Activation
  Time >
      < Status > active </ Status >
      < PhysicalConnectionBusinessStatus > Normal </ PhysicalCo
  nnectionBusinessStatus >
```

```
< VlanInterf aceId > ri - 2zeum6rgu0 586xxxxxxx x </
VlanInterf aceId >
  < AccessPoin tId > ap - cn - beijing - dx - A </ AccessPoin
tId >
  < VbrId > vbr - 2zecmmvg5g xxxxxxxx </ VbrId >
  </ VirtualBor derRouterT ype >
</ VirtualBor derRouterS et >
  < TotalCount > 1 </ TotalCount >
  < PageSize > 10 </ PageSize >
</ DescribeVi rtualBorde rRoutersRe sponse >
```

JSON format

```
{
  " DescribeVi rtualBorde rRoutersRe sponse ":{
    " PageNumber ":" 1 ",
    " VirtualBor derRouterS et ":{
      " VirtualBor derRouterT ype ":{
        " LocalGatew ayIp ":" 10 . 1 . xx . xx ",
        " PeerGatew ayIp ":" 10 . 2 . xx . xx ",
        " PhysicalCo nnectionOw nerUid ":" 123157908X XXXXXXXX ",
        " VlanId ":" 10 ",
        " PhysicalCo nnectionSt atus ":" Enabled ",
        " PhysicalCo nnectionId ":" pc - 2zeoaxkq3j otxxxxxxx ",
        " RouteTable Id ":" vtb - 2ze9hmd6yo fwvxxxxxxx x ",
        " PeeringSub netMask ":" 255 . 0 . 0 . 0 ",
        " CreationTi me ":" 2018 - 03 - 06T11 : 16 : 34Z ",
        " Activation Time ":" 2018 - 03 - 06T11 : 16 : 34Z ",
        " Status ":" active ",
        " PhysicalCo nnectionBu sinessStat us ":" Normal ",
        " VlanInterf aceId ":" ri - 2zeum6rgu0 586xxxxxxx x ",
        " VbrId ":" vbr - 2zecmmvg5g xxxxxxxx ",
        " AccessPoin tId ":" ap - cn - beijing - dx - A "
      }
    },
    " TotalCount ":" 1 ",
    " PageSize ":" 10 ",
    " RequestId ":" AE65530E - 8436 - 4FB1 - 8217 - DCD35712AC 89 "
  }
}
```

Error codes

| HTTP status code | Error code | Error message | Description |
|------------------|------------------------------------|---|--|
| 404 | InvalidFilterKey.ValueNotSupported | Specified filter key is not supported: Filter.X.key | The specified filter key is not supported. |

[See common error codes.](#)

6.5 DescribeVirtualBorderRoutersForPhysicalConnection

Queries the Virtual Border Routers (VBRs) associated with a physical connection, including the VBRs under the physical connection owner's account and other accounts.

Debug

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

Request parameters

| Parameter | Type | Required? | Example value | Description |
|------------------------|------------|-----------|---|---|
| Action | String | Yes | DescribeVirtualBorderRoutersForPhysicalConnection | The name of this action. Value: DescribeVirtualBorderRoutersForPhysicalConnection |
| PhysicalConnectionId | String | Yes | pc-119mfjzm7 | The ID of the physical connection. |
| RegionId | String | Yes | cn-shanghai | The ID of the region to which the physical connection belongs. To query the region ID, call DescribeRegions . |
| Filter . N . Key | String | No | 1 | Optional. The filter key. Value range of N: 1 to 5. |
| Filter . N . Value . N | RepeatList | No | 1 | Optional. The value of the filter key. Value range of N: 1 to 5. |
| PageNumber | Integer | No | 10 | Optional. The page number of the VBR list. Default value: 1 |

| Parameter | Type | Required ? | Example value | Description |
|-----------|---------|---------------|---------------|---|
| PageSize | Integer | No | 10 | Optional. The number of rows per page. Maximum value: 50. Default value: 10 |

Response parameters

| Parameter | Type | Example value | Description |
|---|--------|---------------------|---|
| VirtualBorderRouterForPhysicalConnectionSet | | | The list of VBRs. |
| ↳ActivationTime | String | 2017-06-08T12:20:55 | The time when the VBR is activated for the first time. |
| ↳CircuitCode | String | longtel001 | The leased line code provided by the service provider for the physical connection. |
| ↳CreationTime | String | 2017-06-08T12:20:55 | The time when the VBR is created. |
| ↳LocalGatewayIp | String | 10.0.0.4 | The Alibaba Cloud-side IP address used by the VBR. |
| ↳PeerGatewayIp | String | 10.0.0.5 | The customer-side IP address used by the VBR. |
| ↳PeeringSubnetMask | String | 255.255.255.0 | The subnet mask of the Alibaba Cloud-side IP address and the customer-side IP address. |
| ↳RecoveryTime | String | 2017-06-08T12:20:55 | The most recent time when the VBR is recovered from the Terminated state to the Active state. |

| Parameter | Type | Example value | Description |
|-----------------|---------|--------------------------------------|--|
| TerminationTime | String | 2017-06-08T12:20:55 | The most recent time when the VBR is terminated. |
| VbrId | String | 12 | The ID of the VBR. |
| VbrOwnerId | Long | 1342435124 | The account ID of the VBR owner. When the VBR and the physical connection belong to the same owner, this parameter is empty. |
| VlanId | Integer | 10 | The VLAN ID of the VBR. |
| TotalCount | Integer | 10 | The total number of queried VBRs. |
| PageNumber | Integer | 10 | The current page number. |
| PageSize | Integer | 10 | The number of queried VBRs per page. |
| RequestId | String | 7C5AE8B3-A2D8-428D-A2FF-93A225C0821E | The request ID. |

Examples

Request example

```
http ( s ) : // vpc . aliyuncs . com / ? Action = DescribeVirtualBorderRoutersForPhysicalConnection
& PhysicalConnectionId = pc - 119mfjzm7
& RegionId = cn - shanghai
&< CommonParameters >
```

Response examples

XML format

```
<? xml version = " 1 . 0 " encoding = " UTF - 8 " ? >
< DescribeVirtualBorderRoutersForPhysicalConnectionResponse >
  < RequestId > 03E8CB87 - 5876 - 4034 - BBB2 - 6E0851281C 37 </
  RequestId >
  < PageNumber > 1 </ PageNumber >
  < TotalCount > 2 </ TotalCount >
  < PageSize > 10 </ PageSize >
```

```

< VirtualBor derRouterF orPhysical Connection Set >
  < VirtualBor derRouterF orPhysical Connection Type >
    < Activation Time > 2018 - 03 - 06T11 : 16 : 34Z </ Activation
Time >
    < CreationTi me > 2018 - 03 - 06T11 : 16 : 34Z </ CreationTi me >
    < CircuitCod e ></ CircuitCod e >
    < VlanId > 10 </ VlanId >
    < RecoveryTi me ></ RecoveryTi me >
    < VbrOwnerUx xx23157908 5529123 </ VbrOwnerUi d >
    < Terminatio nTime ></ Terminatio nTime >
    < VbrId > Vbrxxxxx - 2zecmmvg5g vu8i4telkh w </ VbrId >
  </ VirtualBor derRouterF orPhysical Connection Type >
  < VirtualBor derRouterF orPhysical Connection Type >
    < Activation Time > 2018 - 01 - 04T13 : 34 : 18Z </ Activation
Time >
    < CreationTi me > 2018 - 01 - 04T13 : 34 : 18Z </ CreationTi me >
    < CircuitCod e ></ CircuitCod e >
    < VlanId > 100 </ VlanId >
    < RecoveryTi me ></ RecoveryTi me >
    < VxxxbrOwne rUid > 1231579085 529123 </ VbrOwnerUi d >
    < Terminatio nTime ></ Terminatio nTime >
    < VbrId > vbr - 2zee2e2cwe tx4k0tohak w </ VbrId >
  </ VirtualBor derRouterF orPhysical Connection Type >
</ DescribeVi rtualBorde rRoutersFo rPhysicalC onnectionR esponse
>

```

JSON format

```

{
  " PageNumber ": 1 ,
  " TotalCount ": 2 ,
  " PageSize ": 10 ,
  " RequestId ":" 03E8CB87 - 5876 - 4034 - BBB2 - 6E0851281C 37 ",
  " VirtualBor derRouterF orPhysical Connection Set ":{
    " VirtualBor derRouterF orPhysical Connection Type ":[
      {
        " CreationTi me ":" 2018 - 03 - 06T11 : 16 : 34Z ",
        " Activation Time ":" 2018 - 03 - 06T11 : 16 : 34Z ",
        " CircuitCod e ":"",
        " VlanId ": 10 ,
        " RecoveryTi me ":"",
        " VbrOwnerUi d ":" 1231579085 xxxxxx5291 23 ",
        " VbrId ":" vbr - 2zecmmvg5g vu8xxxxw ",
        " Terminatio nTime ":""
      },
      {
        " CreationTi me ":" 2018 - 01 - 04T13 : 34 : 18Z ",
        " Activation Time ":" 2018 - 01 - 04T13 : 34 : 18Z ",
        " CircuitCod e ":"",
        " VlanId ": 100 ,
        " RecoveryTi me ":"",
        " VbrOwnerUi d ":" 1231579085 xxx ",
        " VbrId ":" vbr - 2zee2e2cwe tx4k0txxxx akw ",
        " Terminatio nTime ":""
      }
    ]
  }
}

```

Error codes

| HTTP status code | Error code | Error message | Description |
|------------------|--|---|--|
| 404 | InvalidPhysicalConnectionId. NotFound | The specified PhysicalConnectionId does not belong to user. | The specified physical connection does not belong to your account. |

[See common error codes.](#)

6.6 ModifyVirtualBorderRouterAttribute

Modifies the configurations of a Virtual Border Router (VBR).

Note the following before you call this API:

- The VLAN ID can only be modified by the owner of the physical connection.
- A VLAN ID of a physical connection cannot be used by two VBRs at the same time.
- After a VBR enters the Terminated state, its VLAN ID is retained for seven days and is not allowed to be used by other VBRs during this period. It can be used by other VBRs seven days after the termination of the VBR.
- You cannot configure the LocalGatewayIp, PeerGatewayIp, and PeeringSubnetMask parameters for VBRs that belong to other accounts.
- Requirements on LocalGatewayIp, PeerGatewayIp, and PeeringSubnetMask are as follows:
 - PeeringSubnetMask can be in the range of /24 to /30.
 - PeeringSubnetMask supports dotted decimal notation and can be in the range of 255.255.255.0 to 255.255.255.252.
 - LocalGatewayIp and PeerGatewayIp must be in the same CIDR block.


For example,

- LocalGatewayIp: 192.168.xx 17
- PeerGatewayIp: 192.168.xx 18
- PeeringSubnetMask: 255.255.255.248

Debug


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

Request parameters

| Parameter | Type | Required? | Example value | Description |
|-------------------------------|--------|-----------|------------------------------------|---|
| Action | String | Yes | ModifyVirtualBorderRouterAttribute | The name of this action. Value: ModifyVirtualBorderRouterAttribute |
| RegionId | String | Yes | cn-shanghai | The ID of the region to which the VBR belongs. To query the region ID, call DescribeRegions . |
| VbrId | String | Yes | vbr- ***** | The ID of the VBR. |
| AssociatedPhysicalConnections | String | No | pc-kojok19xxx xxxxxx | Optional. The ID of the physical connection. |
| CircuitCode | String | No | longtel001 | Optional. The leased line code provided by the service provider for the physical connection. <div style="background-color: #f0f0f0; padding: 5px;">  Note: This parameter can only be specified by the owner of the physical connection. </div> |

| Parameter | Type | Required? | Example value | Description |
|------------------|--------|-----------|------------------------------------|---|
| ClientToken | String | No | 02fb3da4-130e-11e9-8e44-00xxxxxxxx | Optional. The client token. It is used to guarantee the idempotence of the request. The value of this parameter is generated by the client. The value is unique among different requests and is 1 to 64 ASCII characters in length. |
| Description | String | No | VBR | Optional. The description of the VBR. The description must be 2 to 256 characters in length. It must start with a letter or a Chinese character, and cannot start with <code>http://</code> or <code>https://</code> . |
| DetectMultiplier | Long | No | 3 | Optional. The multiplier of the detection time, that is, the maximum number of discarded connection packets that the receiver allows from the sender. Value range: 3 to 10. |
| LocalGatewayIp | String | No | 116.62.xx.xx | Optional. The Alibaba Cloud-side IP address used by the VBR. |
| MinRxInterval | Long | No | 100 | Optional. The time interval between two consecutive BFD packets that are received. Value range: 200 to 1000. Unit: ms |

| Parameter | Type | Required ? | Example value | Description |
|-------------------|--------|------------|---------------|--|
| MinTxInterval | Long | No | 100 | Optional. The time interval between two consecutive BFD packets that are sent. Value range: 200 to 1000. Unit: ms |
| Name | String | No | test | The name of the VBR. The name must be 2 and 128 characters in length and can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter or a Chinese character. It cannot start with <code>http://</code> or <code>https://</code> . |
| PeerGatewayIp | String | No | 120.120.xx.xx | Optional. The customer-side IP address used by the VBR. Only the VBR owner can specify or modify this parameter. For VBRs in the Enabled state, you cannot leave this parameter empty. |
| PeeringSubnetMask | String | No | 255.255.128.0 | Optional. The subnet mask of the Alibaba Cloud-side IP address and the customer-side IP address. The two IP addresses must be in the same subnet. |

| Parameter | Type | Required ? | Example value | Description |
|-----------|---------|---------------|---------------|---|
| VlanId | Integer | No | 12 | Optional. The VLAN ID of the VBR. Value range: 1 to 2999  Note: This parameter can only be specified by the owner of the physical connection. The VLAN IDs of two VBRs associated with the same physical connection must be different. |

Response parameters

| Parameter | Type | Example value | Description |
|-----------|--------|--------------------------------------|-----------------|
| RequestId | String | 980960B0-2969-40BF-8542-EBB34FD358AB | The request ID. |

Examples

Request example

```

http ( s )://[ Endpoint ]/? Action = ModifyVirt ualBorderR
outerAttri bute
& RegionId = cn - shanghai
& VbrId = vbr -*****
&< CommonPara meters >

```

Response examples

XML format

```

< ModifyVirt ualBorderR outerAttri buteRespon se >
  < RequestId > 980960B0 - 2969 - 40BF - 8542 - EBB34FD358 AB </
  RequestId >
</ ModifyVirt ualBorderR outerAttri buteRespon se >

```

JSON format

```

{
  " RequestId ":" 980960B0 - 2969 - 40BF - 8542 - EBB34FD358 AB "
}

```

Error codes

| HTTP status code | Error code | Error message | Description |
|------------------|--|--|---|
| 404 | InvalidRegionId.NotFound | The specified RegionId is not found. | The specified region ID is invalid. Please check if the cloud service is available in the specified region. |
| 400 | InvalidVbrId.NotFound | The specified VirtualBorderRouter is not found. | The specified VBR does not exist. |
| 400 | InvalidVlanId.Used | The specified VlanId has been used. | The specified VLAN is already occupied. |
| 400 | InvalidCircuitCode.Malformed | The specified CircuitCode is not valid. | The specified value of the CircuitCode parameter is invalid. |
| 400 | InvalidVlanId.Malformed | The specified VlanId is not valid. | The specified value of the VlanId parameter is invalid. |
| 400 | InvalidIp.Malformed | The specified ip address is not valid. | The specified private IP address is invalid. |
| 400 | InvalidPeeringSubnetMask.Malformed | The specified PeeringSubnetMask is not valid. | The specified value of the PeeringSubnetMask parameter is invalid. |
| 403 | Forbidden.CircuitCodeNotAllowedByCaller | The caller is not allowed to modify. | You are not allowed to modify the CircuitCode parameter. |
| 403 | Forbidden.CircuitCodeNotAllowedByCaller | The caller is not allowed to specify the CircuitCode parameter. | You are not allowed to specify the CircuitCode parameter. |
| 403 | Forbidden.LocalGatewayIpNotAllowedByCaller | The caller is not allowed to specify the LocalGatewayIp parameter. | You are not allowed to specify the LocalGatewayIp parameter. |

| HTTP status code | Error code | Error message | Description |
|------------------|---|---|--|
| 403 | Forbidden. PeerGatewayIpNotAllowedByCaller | The caller is not allowed to specify the PeerGatewayIp parameter. | You are not allowed to specify the PeerGatewayIp parameter. |
| 403 | Forbidden. PeeringSubnetMaskNotAllowedByCaller | The caller is not allowed to specify the PeeringSubnetMask parameter. | You are not allowed to specify the PeeringSubnetMask parameter. |
| 403 | Forbidden. VlanIdNotAllowedByCaller | The caller is not allowed to specify the VlanId. | You are not allowed to specify the VLAN ID. |
| 403 | Forbidden. NameNotAllowedByCaller | The caller is not allowed to specify the Name parameter. | You are not allowed to specify the Name parameter. |
| 403 | Forbidden. DescriptionNotAllowedByCaller | The caller is not allowed to specify the Description parameter. | You are not allowed to specify the Description parameter. |
| 400 | InvalidIp. NotSameSubnet | Local gateway ip and peer gateway ip are not in the same subnet. | The local gateway IP address and the peer gateway IP address are not in the same subnet. |

[See common error codes.](#)

6.7 TerminateVirtualBorderRouter

Terminates a Virtual Border Router (VBR).

After the API is called, the VBR status changes from the Enabled state to the Terminated state. After the termination is completed, the VBR status changes to Terminated.



Note:

Only the owner of the physical connection to which the VBR belongs can call the API.

Debug

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

Request parameters

| Parameter | Type | Required? | Example value | Description |
|-------------|--------|-----------|-------------------------------------|--|
| Action | String | Yes | TerminateVirtualBorderRouter | The name of this action. Value: TerminateVirtualBorderRouter |
| RegionId | String | Yes | cn-shanghai | The ID of the region to which the VBR belongs. To query the region ID, call DescribeRegions . |
| VbrId | String | Yes | vbr-bp15zckdt37pq72zvw3 | The ID of the VBR. |
| ClientToken | String | No | 02fb3da4-130e-11e9-8e44-0016e04115b | Optional. The client token. It is used to guarantee the idempotence of the request. The value of this parameter is generated by the client and is unique among different requests. It can be 1 to 64 ASCII characters in length. |

Response parameters

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

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = TerminateV irtualBord
erRouter
& RegionId = cn - shanghai
& VbrId = vbr - bp15zckdt3 7pq72zvw3
&< CommonPara meters >
```

Response examples

XML format

```
< TerminateV irtualBord erRouterRe sponse >
  < RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 </
  RequestId >
</ TerminateV irtualBord erRouterRe sponse >
```

JSON format

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

Error codes

| HTTP status code | Error code | Error message | Description |
|------------------|---|---|---|
| 404 | InvalidVbrId.NotFound | The specified VirutalBorderRouter is not found. | The specified VBR does not exist. |
| 400 | InvalidOperation.OperationNotAllowedInState | The specified VirutalBorderRouter is in invalid state. | The status of the VBR does not permit this operation. |
| 403 | Forbidden.OperationNotAllowedByUser | The caller is not allowed to terminate the specified VirtualBorderRouter. | You are not allowed to terminate the VBR. |

[See common error codes.](#)

6.8 RecoverVirtualBorderRouter

Recovers a Virtual Border Router (VBR) that is terminated.

After the API is called, the VBR status changes from Terminated to Recovering. When the recovering is completed, the status of the VBR changes to Enabled.

Note the following before you recover a VBR:

- Only the owner of the physical connection can call this API.
- The physical connection to which the VBR belongs must be in the Enabled state.

Debug

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

Request parameters

| Parameter | Type | Required ? | Example value | Description |
|-------------|--------|---------------|-------------------------------------|--|
| Action | String | Yes | RecoverVirtualBorderRouter | The name of this action. Value: RecoverVirtualBorderRouter |
| RegionId | String | Yes | cn-shanghai | The ID of the region to which the VBR belongs. To query the region ID, call DescribeRegions . |
| VbrId | String | Yes | vbr-bp1lhl0taikrteen80 | The ID of the VBR. |
| ClientToken | String | No | 02fb3da4-130e-11e9-8e44-0016e04115b | Optional. The client token. It is used to guarantee the idempotence of the request. The value of this parameter is generated by the client and is unique among different requests. It can contain up to 64 ASCII characters. |

Response parameters

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

Examples

Request example

```
http ( s )://[ Endpoint ]/? Action = RecoverVir tualBorder Router
& RegionId = cn - shanghai
& VbrId = vbr - bp1lhl0tai krteen80
&< CommonPara meters >
```

Response examples

XML format

```
< RecoverVir tualBorder RouterResp onse >
  < RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 </
  RequestId >
</ RecoverVir tualBorder RouterResp onse >
```

JSON format

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

Error codes

| HTTP status code | Error code | Error message | Description |
|------------------|---|---|--|
| 404 | InvalidVbrId.NotFound | The specified VirtualBorderRouter is not found. | The specified VBR does not exist. |
| 400 | InvalidOperation.OperationNotAllowedInState | The specified VirtualBorderRouter is in invalid state | The status of the VBR interface does not allow this operation. |
| 400 | OperationFailed.VlanIdAlreadyInUse | The specified vlanId has been used. | The specified VLAN is already occupied. |

| HTTP status code | Error code | Error message | Description |
|------------------|---|---|---|
| 403 | Forbidden. OperationNotAllowedByUser | The caller is not allowed to recover the specified VirtualBorderRouter. | You are not allowed to recover the specified VBR. |

[See common error codes.](#)

6.9 AssociatePhysicalConnectionToVirtualBorderRouter



Associates a Virtual Border Router (VBR) with a physical connection.

Debug

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

Request parameters

| Parameter | Type | Required? | Example value | Description |
|----------------------|--------|-----------|--|---|
| Action | String | Yes | AssociatePhysicalConnectionToVirtualBorderRouter | The name of this action. Value: AssociatePhysicalConnectionToVirtualBorderRouter |
| PhysicalConnectionId | String | Yes | pc-bp1qrb3044eqixog**** | The ID of the physical connection. |
| RegionId | String | Yes | cn-hangzhou | The region ID of the physical connection. |
| VbrId | String | Yes | vbr-bp186tnz6rijyhj***** | The ID of the VBR. |

| Parameter | Type | Required? | Example value | Description |
|----------------|--------|-----------|------------------------------------|---|
| VlanId | String | Yes | 123 | <p>The VLAN ID of the VBR.</p> <p>Value range: 1 to 2999</p> <p> Note: Only the owner of the physical connection can specify this parameter. The VLAN IDs of two VBRs in the same physical connection must be different.</p> |
| CircuitCode | String | No | longtel001 | <p>Optional. The leased line code provided by the service provider for the physical connection.</p> <p> Note: This parameter can only be specified by the owner of the physical connection.</p> |
| ClientToken | String | No | 02fb3da4-130e-11e9-8e44-00xxxxxxxx | <p>Optional. The client token used to guarantee the idempotence of the request.</p> <p>The value of this parameter is generated by the client. The value is unique among different requests and 1 to 64 ASCII characters in length.</p> |
| LocalGatewayIp | String | No | 10.10.0.1 | <p>Optional. The Alibaba Cloud-side IP address used by the VBR.</p> |

| Parameter | Type | Required ? | Example value | Description |
|-------------------|--------|---------------|---------------|---|
| PeerGatewayIp | String | No | 10.10.10.9 | Optional. The customer-side IP address used by the VBR. This parameter can only be specified or modified by the VBR owner. You cannot change the value of this parameter to null for a VBR in the Enabled state. |
| PeeringSubnetMask | String | No | 255.255.255.0 | Optional. The subnet mask of the Alibaba Cloud-side IP address and the customer-side IP address. The two IP addresses must belong to the same subnet. |

Response parameters

| Parameter | Type | Example value | Description |
|-----------|--------|--------------------------------------|-----------------|
| RequestId | String | 980960B0-2969-40BF-8542-EBB34FD358AB | The request ID. |

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = AssociatePhysicalConnectionToVirtualBorderRouter
& PhysicalConnectionId = pc - bp1qrb3044 eqixog ****
& RegionId = cn - hangzhou
& VbrId = vbr - bp186tnz6r ijihj *****
& VlanId = 123
&< CommonParameters >
```

Response examples

XML format

```
< AssociatePhysicalConnectionToVirtualBorderRouterResponse >
  < RequestId > 980960B0 - 2969 - 40BF - 8542 - EBB34FD358 AB </
  RequestId >
  </ AssociatePhysicalConnectionToVirtualBorderRouterResponse >
```

JSON format

```
{
  "RequestId ":" 980960B0 - 2969 - 40BF - 8542 - EBB34FD358 AB "
}
```

Errors

| HTTP status code | Error code | Error message | Description |
|------------------|---|--|--|
| 404 | InvalidInstanceId.NotFound | The specified Instance does not exist in the specified region. | The specified instance does not exist in the specified region. |
| 404 | InvalidVbrId.NotFound | The specified VirtualBorderRouter does not exist in our records. | The specified VBR does not exist. |
| 400 | InvalidOperation.RouterInterfaceNotDeleted | The specified VirtualBorderRouter still has routerInterface. | The specified VBR is associated with router interfaces. |
| 400 | InvalidOperation.OperationNotAllowedInState | The specified VirtualBorderRouter is in invalid state. | The status of the VBR does not permit this operation. |
| 403 | Forbidden.OperationNotAllowedByUser | The caller is not allowed to delete the specified VirtualBorderRouter. | You are not allowed to delete the specified VBR. |
| 403 | Forbidden.MultiVlanRi | Multiple vlan router interfaces are found. | Multiple VLAN router interfaces exist. |
| 403 | Forbidden.NoRiFound | No vlan router interfaces are found. | No VLAN router interface is available. |
| 400 | InvalidStatus.NotAllowed | Invalid virtual border router status. | The status of the VBR does not permit this operation. |

| HTTP status code | Error code | Error message | Description |
|------------------|--|---|---|
| 404 | InvalidRegionId. NotFound | The specified RegionId is not found. | The specified region ID is invalid. Please check if the cloud service is available in the specified region. |
| 400 | InvalidPhysicalConnectionId. NotFound | The specified PhysicalConnectionId is not found. | The specified physical connection ID is invalid. |
| 400 | InvalidVlanId. Used | The specified VlanId has been used. | The specified VLAN is already occupied. |
| 400 | MissingParameter | The input parameter 'PhysicalConnectionId' that is mandatory for processing this request is not supplied. | The PhysicalConnectionId parameter must be specified. |
| 400 | InvalidPhysicalConnectionId. NotEnabled | The specified PhysicalConnectionId is not in Enabled state. | The status of the specified physical connection does not permit this operation. |
| 404 | InvalidVbrOwnerId. NotFound | The specified VbrOwnerId is not valid. | The value of the VbrOwnerId parameter is invalid. |
| 400 | MissingParameter | The input parameter 'VlanId' that is mandatory for processing this request is not supplied. | The VlanId parameter must be specified. |
| 400 | InvalidVlanId. Malformed | The specified VlanId is not valid. | The specified value of the VlanId parameter is invalid. |
| 400 | InvalidCircuitCode. Malformed | The specified CircuitCode is not valid. | The specified value of the CircuitCode parameter is invalid. |

| HTTP status code | Error code | Error message | Description |
|------------------|---|--|--|
| 400 | MissingParameter | The input parameter 'LocalGatewayIp' that is mandatory for processing this request is not supplied. | The LocalGatewayIp parameter must be specified. |
| 400 | InvalidLocalGatewayIp.Malformed | The specified LocalGatewayIp is not valid. | The IP address of the local gateway is invalid. |
| 400 | MissingParameter | The input parameter 'PeerGatewayIp' that is mandatory for processing this request is not supplied. | The PeerGatewayIp parameter must be specified. |
| 400 | InvalidPeerGatewayIp.Malformed | The specified PeerGatewayIp is not valid. | The specified value of the PeerGatewayIp parameter is invalid. |
| 400 | MissingParameter | The input parameter 'PeeringSubnetMask' that is mandatory for processing this request is not supplied. | The PeeringSubnetMask parameter must be specified. |
| 400 | InvalidPeeringSubnetMask.Malformed | The specified PeeringSubnetMask is not valid. | The specified value of the PeeringSubnetMask parameter is invalid. |
| 403 | Forbidden.LocalGatewayIpNotAllowedByCaller | The caller is not allowed to specify the LocalGatewayIp parameter. | You are not allowed to specify the LocalGatewayIp parameter. |
| 403 | Forbidden.PeerGatewayIpNotAllowedByCaller | The caller is not allowed to specify the PeerGatewayIp parameter. | You are not allowed to specify the PeerGatewayIp parameter. |
| 403 | Forbidden.PeeringSubnetMaskNotAllowedByCaller | The caller is not allowed to specify the PeeringSubnetMask parameter. | You are not allowed to specify the PeeringSubnetMask parameter. |

| HTTP status code | Error code | Error message | Description |
|------------------|---|--|--|
| 403 | Forbidden. NameNotAllowedByCaller | The caller is not allowed to specify the Name parameter. | You are not allowed to specify the Name parameter. |
| 403 | Forbidden. DescriptionNotAllowedByCaller | The caller is not allowed to specify the Description parameter. | You are not allowed to specify the Description parameter. |
| 400 | InvalidName. Malformed | The specified ? Name? is not valid. | The format of the name is invalid. |
| 400 | InvalidDescription. Malformed | The specified ? Description? is not valid. | The format of the description is invalid. The description must be 2 to 256 characters in length. It cannot start with http:// or https://. |
| 400 | QuotaExceeded. vbrPerpConn | Virtual boarder router per PhysicalConnection quota exceed. | The VBR quota for the physical connection is exceeded. |
| 400 | EXCEED_ASSOCIATE_MAX_NUM | assocait virtual boarder num too many. | The quota of associated VBRs is exceeded. |
| 400 | InvalidIP. Malformed | Ip malformed. | The IP address format is invalid. |
| 400 | InvalidIp. NotSameSubnet | Local gateway ip and peer gateway ip are not in the same subnet. | The local gateway IP address and the peer gateway IP address do not belong to the same subnet . |
| 400 | InvalidStatus. StatusNotEnabled | The physical connection status is invalid. | The status of the physical connection does not permit this operation. |
| 400 | PHYSICAL_NOT_ALLOW_ASSOCIATE_VBR | The specified operation not allow. | The operation failed because the physical connection is associated with VBRs. |

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


6.10 UnassociatePhysicalConnectionFromVirtualBorderRouter


Disassociates a Virtual Border Router (VBR) from a physical connection.

Debug

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

Request parameters

| Parameter | Type | Required? | Example value | Description |
|----------------------|--------|-----------|--|--|
| Action | String | Yes | UnassociatePhysicalConnectionFromVirtualBorderRouter | The name of this action. Value: UnassociatePhysicalConnectionFromVirtualBorderRouter |
| PhysicalConnectionId | String | Yes | pc-bp1qrb3044eqixog**** | The ID of the physical connection. |
| RegionId | String | Yes | cn-hangzhou | The region ID of the physical connection. |
| VbrId | String | Yes | vbr-bp16ksp61j7e0tkn***** | The VLAN ID of the VBR. Value range: 1 to 2999. <div style="background-color: #f0f0f0; padding: 5px;">  Note: This parameter can only be specified by the owner of the physical connection. The VLAN IDs of two VBRs associated with the same physical connection must be different. </div> |

| Parameter | Type | Required ? | Example value | Description |
|-------------|--------|---------------|---------------|--|
| ClientToken | String | No | longtel001 | Optional. The leased line code provided by the service provider for the physical connection.  Note: This parameter can only be specified by the owner of the physical connection. |

Response parameters

| Parameter | Type | Example value | Description |
|-----------|--------|--------------------------------------|-----------------|
| RequestId | String | 980960B0-2969-40BF-8542-EBB34FD358AB | The request ID. |

Examples

Request example

```
http ( s ) : // [ Endpoint ] / ? Action = UnassociatePhysicalConnectionFromVirtualBorderRouter
& PhysicalConnectionId = pc - bp1qrb3044 eqixog ****
& RegionId = cn - hangzhou
& VbrId = vbr - bp16ksp61j 7e0tkn *****
&< CommonParameters >
```

Response examples

XML format

```
< UnassociatePhysicalConnectionFromVirtualBorderRouterResponse >
  < RequestId > 980960B0 - 2969 - 40BF - 8542 - EBB34FD358 AB </
  RequestId >
</ UnassociatePhysicalConnectionFromVirtualBorderRouterResponse >
```

JSON format

```
{
  " RequestId " : " 980960B0 - 2969 - 40BF - 8542 - EBB34FD358 AB "
```

}

Errors

| HTTP status code | Error code | Error message | Description |
|------------------|--|--|---|
| 404 | InvalidVbrId.NotFound | The specified VirtualBorderRouter does not exist in our records. | The specified VBR does not exist. |
| 404 | InvalidVbrId.NotFound | The specified VirtualBorderRouter or PhysicalConnection does not exist in our records. | The specified VBR or physical connection does not exist. |
| 400 | PARAMETER_MUST_NOT_NULL | The specified physical connection id or vbrId must not be null. | The VbrId parameter and the PhysicalConnectionId parameter must be specified. |
| 400 | PHYSICAL_NOT_ASSOCIATE_TO_VBR | The specified PhysicalConnection have not associate to the vbr. | No VBR is created for the specified physical connection. |
| 400 | ROUTER_INTERFACE_REFERED_BY_ROUTEENTRY | The specified VlanInterface has been used by routeEntry. | The specified VLAN interface is already used in a route entry. |
| 400 | InvalidStatus.NotAllowed | Invalid virtual border router status. | The status of the VBR does not permit this operation. |
| 400 | PHYSICAL_NOT_ALLOW_ASSOCIATE_VBR | The specified operation not allow. | The operation failed because the physical connection is associated with VBRs. |

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