

Alibaba Cloud Express Connect

API reference

Issue: 20190808

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

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>switch {stand slave}</code>

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1 API overview

This topic lists available APIs of Express Connect.

Virtual Border Routers (VBRs)

API	Description
CreateVirtualBorderRouter	Creates a Virtual Border Router (VBR).
DescribeVirtualBorderRouters	Queries one or more VBRs.
DescribeVirtualBorderRoutersForPhysicalConnection	Queries the VBRs associated with a physical connection , including the VBRs under the physical connection owner's account and other accounts.
ModifyVirtualBorderRouterAttribute	Modifies the configurations of a VBR.
RecoverVirtualBorderRouter	Recovers a VBR that is terminated.
TerminateVirtualBorderRouter	Terminates a VBR.

Physical connections

API	Description
CreatePhysicalConnection	Applies for a physical connection.
CancelPhysicalConnection	Cancels a physical connection. After a physical connection is cancelled, it enters the Canceled state.
DeletePhysicalConnection	Deletes a physical connection.
DescribePhysicalConnections	Queries physical connections in a specified region.
EnablePhysicalConnection	Enables a physical connection that is in the Confirmed state. After a physical connection is enabled, it enters the Enabled state.
ModifyPhysicalConnectionAttribute	Modifies the configurations of a physical connection.
TerminatePhysicalConnection	Terminates a physical connection after the physical connection is enabled.
ApplyPhysicalConnectionLOA	Submits an application for the LOA.

API	Description
CompletePhysicalConnectionLOA	Reports information about the completed installation of the leased line.
CreatePhysicalConnectionOccupancyOrder	Creates an order for the resource occupation fee.
CreatePhysicalConnectionSetupOrder	Creates an order for the initial installation fee.
DescribePhysicalConnectionLOA	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 [Common parameters](#).

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 = DescribePhysicalConnections
& Format = xml
& Version = 2016 - 04 - 28
& Signature = xxxx % xxxx % 3D
```

```
& SignatureMethod = HMAC - SHA1
& SignatureNonce = 1521552885 2396
& SignatureVersion = 1 . 0
& AccessKeyId = 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 [RAM authentication](#).

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 & SignatureNonce = 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 = DescribePhysicalConnections
& Timestamp = 2016 - 05 - 23T12 : 46 : 24Z
& Format = XML
& AccessKeyId = testid
& SignatureMethod = HMAC - SHA1
& SignatureNonce = 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%3A25%3A46%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: - 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: • 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.NotAllowedInState	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	Optional. The filter condition . Value range of N: 1 to 5. Supported filter conditions include: - 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 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.
Filter . N . Value . N	RepeatList	No	1	Optional. The value of the corresponding filter condition. Value range of N: 1 to 5

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: - 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: • 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: • 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	The status of the physical connection. Valid values: • 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-2zeoaxkq3jot5p71qcnu y</PhysicalConnectionId>
      <PeerLocation>XXX-XXBuilding--XXCity</PeerLocation>
    >
    <CreationTime>2017-12-13T02:28:42Z</CreationTime>
    <Name>TEST</Name>
    <Status>Enabled</Status>
    <AdLocation>XXX--CabinetXX-XXXXXXRoomX 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</AccessPointId>
  <PortType>100Base-T</PortType>
  <Bandwidth>2</Bandwidth>
</PhysicalConnectionType>
</PhysicalConnectionSet>
</DescribePhysicalConnectionsResponse>
```

JSON format

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

```
" 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: - 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: • 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 = EnablePhys icalConnec  
tion  
& PhysicalCo nnectionId = pc - 119mfjzm7  
& RegionId = cn - shanghai  
&< CommonPara meters >
```

Response example

- XML format

```
< EnablePhys icalConnec tionRespon se >  
  < RequestId > 0ED8D006 - F706 - 4D23 - 88ED - E11ED28DCA C0 </  
    RequestId >  
</ EnablePhys icalConnec tionRespon se >
```

- 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.

[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-bp10tvlnhwkwxxxxxxxxxx	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 - bp10tvlnhw  
kwxxxxxxxxxx  
& 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: · 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: · 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. - 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 >
  < httpStatus Code > 200 </ httpStatus Code >
  < message > successful </ message >
  < requestId > CBCE910E - D396 - 4944 - 8764 - B4047838B2 D1 </
requestId >
  < success > true </ success >
</ CreatePhysicalConnectionOccupancyOrderResponse >
```

JSON format

```
{
  "message": "successful",
  "httpStatus Code": 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	The service provider that provides the leased line. Valid values: • 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	The region of the physical connection. To query the region ID, call DescribeRegions.
AutoPay	Boolean	No	true	Optional. Indicates whether to pay the fee automatically. Valid values: true false
ClientToken	String	No	318BB676-0A2B-43A0-9AD8-F1D34E93750F	Optional. The token used for client authentication.

Parameter	Type	Required ?	Example value	Description
PortType	String	No	100Base-T	Optional. The type of the physical connection port. Valid values: • 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-bp10zsv5ntpxxxxxxxxxx	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 >
  < httpStatus Code > 200 </ httpStatus Code >
  < message > successful </ message >
  < requestId > AA874147 - 4A58 - 41D4 - 95E2 - F2FFDAF417 A6 </
requestId >
  < success > true </ success >
</ CreatePhysicalConnectionSetupOrderResponse >
```

JSON format

```
{
  " message ":" successful ",
  " httpStatus Code ": 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 · Valid values: · 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=dCrRKgLiFLHAAo6k&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 HX0Dnjpr1o
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 HX0Dnjpr1o 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: · 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: - 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. - 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. 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..](#)

5 VBR interfaces

5.1 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	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.
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.

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> <code>://</code> or <code>https</code> <code>://</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> <code>://</code> or <code>https</code> <code>://</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 - 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.
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.](#)

5.2 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-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 .
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 - xxxxxxxxx
& RegionId = cn - shanghai
& VlanId = 10
&< CommonParameters >
```

Response examples

XML format

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

JSON format

```
{
  "CreateVirtualInterfaceResponse":{
    "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.](#)

5.3 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 router interface.	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 physical connection.	The VBR is already associated with a physical connection.

[See common error codes.](#)

5.4 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-kojok19xxx 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.
PhysicalConnectionOwnerId	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.
CreationTime	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	The status of the physical connection: • 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 >
      < PhysicalConnectionOwnerId > 123157908X XXXXXXXX </
      PhysicalConnectionOwnerId >
      < 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 >
    </ VirtualBorderRouterType >
  </ VirtualBorderRouterSet >
</ DescribeVirtualBorderRoutersResponse >
```

```

    < 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.](#)

5.5 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
<code>TerminationTime</code>	String	2017-06-08T12:20:55	The most recent time when the VBR is terminated.
<code>VbrId</code>	String	12	The ID of the VBR.
<code>VbrOwnerId</code>	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.
<code>VlanId</code>	Integer	10	The VLAN ID of the VBR.
<code>TotalCount</code>	Integer	10	The total number of queried VBRs.
<code>PageNumber</code>	Integer	10	The current page number.
<code>PageSize</code>	Integer	10	The number of queried VBRs per page.
<code>RequestId</code>	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.](#)

5.6 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.  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-11e9-8e44-00xxxxxxxx	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 -*****
&< CommonParameters >
```

Response examples

XML format

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

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.](#)

5.7 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.](#)

5.8 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.](#)