Alibaba Cloud **Express Connect**

API reference

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Generic conventions

Table -1: Style conventions

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

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

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1 API Overview

The following table lists the APIs that Express Connect provides. For more information about Express Connect APIs, refer to VPC API documents.

Router interfaces

API	Description	
ActivateRouterInterface	Activate a router interface.	
ConnectRouterInterface	Initiate a connection.	
CreateRouterInterface	Create a router interface.	
DeactivateRouterInterface	Deactivate a router interface.	
DeleteRouterInterface	Delete a router interface.	
DescribeRouterInterfaces	Query the list of router interfaces.	
ModifyRouterInterfaceAttribute	Modify the attributes of a router interface.	
ModifyRouterInterfaceSpec	Modify the specification of a router interface.	

Virtual border router

API	Description	
CreateVirtualBorderRouter	Create a virtual border router.	
DescribeVirtualBorderRouters	Query the list of virtual border routers.	
DescribeVirtualBorderRoutersFo	Queicy the histion virtual border routers under a physical connection.	
ModifyVirtualBorderRouterAttrib	Modify the information of a virtual border router.	
RecoverVirtualBorderRouter	Recover a virtual border router.	
TerminateVirtualBorderRouter	Terminate a virtual border router.	

Physical connection

API	Description	
CreatePhysicalConnection	Apply for a physical connection.	
CancelPhysicalConnection	Cancel a physical connection.	
DeletePhysicalConnection	Delete a physical connection.	

API	Description	
DescribePhysicalConnections	Query the list of physical connections.	
EnablePhysicalConnection	Enable a physical connection.	
ModifyPhysicalConnectionAttrib	Modify the attributes of a physical connection.	
TerminatePhysicalConnection	Terminate a physical connection.	

2 Physical connections

2.1 CreatePhysicalConnection

Create a physical connection.

After the physical connection changes to the Initial status, contact the service provider for construction.

Note the following before creating a physical connection:

- The number of physical connections that are not in the Enabled status cannot exceed five.
- · If there is a delinquent physical connection in your account, you cannot apply for more physical connection.

Request parameters

Name	Туре	Require	Description
Action	String	Yes	The action to perform. Valid value: CreatePhys icalConnec tion
RegionId	String	Yes	The region of the physical connection. You can obtain the region ID by calling the DescribeRegions API.
AccessPoin tId	String	Yes	The ID of the access point used by the physical connection. You can obtain the region ID by calling the DescribeRegions API.
CircuitCod e	String	No	The circuit code provided by the service provider for the physical connection.

Name	Туре	Require	Description
LineOperat or	String	Yes	The service provider that provides the physical connection. Valid value:
			· CT: China Telecom
			· CU : China Unicom
			· CM: China Mobile
			· CO: Others in China
			· Equinix : Equinix
			· Other : Others outside China
PeerLocati on	String	Yes	The geographic location of the local data center .
BandWidth	String	No	The bandwidth in Mbps of the physical connection. The default value is 100 and the valid value is [2, 10240].
PortType	String	No	The port type of the physical connection. Valid value:
			· 100Base - T:100-MB electrical port
			· 1000Base - T (default): 1-GB electrical
			port
			· 1000Base - LX :1-GB single-mode optical
			port (10 km)
			· 10GBase - T:10-GB electrical port
			• 10GBase - LR : 10-GB single-mode optical
			port (10 km)
RedundantP	String	No	The ID of the redundant physical connection.
hysicalCon			The redundant physical connection must be in the Allocated, Confirmed, or Enabled status.
nectionId			the finocuted, commined, or bhabited status.

Name	Туре	Require	Description
Name	String	No	The name of the physical connection. The name The name can contain from 2 to 128 characters including a-z, A-Z, 0-9, dots, underscores, and hyphens. The name must start with an English letter, but cannot start with http://or https://.
Descriptio n	String	No	The description of the physical connection. The description can contain 2-256 characters. It must start with English letters, but cannot start with https:// .
ClientToke n	String	No	A client token used to guarantee the idempotence of requests. This parameter value is generated by the client and is guaranteed to be unique among different requests. The maximum length is 64 ASCII characters.

Response parameters

Name	Туре	Description
RequestId	String	The ID of the request.
PhysicalCo nnectionId	String	The ID of the VPC.

Examples

Request example

```
https:// vpc . aliyuncs . com /? Action = CreatePhys icalConnec
tion
& RegionId = cn - beijing
& AccessPoin tId = ap - cn - beijing - ft - A
& LineOperat or = CT
& PeerLocati on = XXX
& CommonPara meters
```

Response example

· XML format

· JSON format

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

2.2 CancelPhysicalConnection

Cancels physical connection access. After the cancelling, the physical connection changes to the Canceled state.

You cannot cancel a physical connection that is in the Enabled state.

Debug

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

Request parameters

Parameter	Туре	Required ?	Example value	Description
Action	String	Yes	CancelPhys icalConnection	The name of this action. Value: CancelPhys icalConnec tion
PhysicalCo nnectionId	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.

Parameter	Туре	Required ?	Example value	Description
ClientToke n	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	Туре	Example value	Description
RequestId	String	4EC47282-1B74 -4534-BD0E- 403F3EE64CAF	The ID of the request.

Examples

Request example

Response example

XML format

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

JSON format

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

}

Error codes

HTTP status code	Error code	Error message	Description
404	InvalidPhy sicalConne ctionId. NotFound	The PhysicalConnectionId provided does not exist in our records.	1 1
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

2.3 DescribePhysicalConnections

Query physical connections in a region.

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	Туре	Required ?	Example value	Description
Action	String	Yes	DescribePh ysicalConn ections	The action to perform. Valid value: DescribePh ysicalConnections

Parameter	Туре	Required ?	Example value	Description
RegionId	String	Yes	cn-hangzhou	The ID of the region where the leased line is deployed. You can obtain the region ID by calling the DescribeRegions API.
ClientToke n	String	No	23243242rggyt	Optional. It is used to guarantee the idempotence of requests. This parameter is generated by clients. It must be unique for each request and must not exceed 64 ASCII characters in length.

Parameter	Туре	Required ?	Example value	Description
Filter . N . Key	String	No		Optional. The filter conditions . 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 type of the physical connection LineOperator: the service provider of the leased line 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 this filter condtion is met when at least one of the specififed value is returned. The relationship of multiple filter conditions is AND, which means a physical connection is displayed in the query result only when it meets all the specified conditions.
Filter . N . Value . N	RepeatLi	sNo	1	Optional. Values of filter conditions. Value range of N: 1 to 5.

Parameter	Туре	Required ?	Example value	Description
IncludeRes ervationDa ta	Boolean	No	false	Optional. Indicates whether to return invalid orders.
PageNumber	Integer	No	10	Optional. The page number of the physical connection list. Default value: 1.
PageSize	Integer	No	1	Optional. The number of rows per page. Maximum value: 50. Default value: 10.

Response parameters

Parameter	Туре	Example value	Description
PhysicalCo nnectionSet			Details of physical connections
└AccessPoin tId	String	eip-2zeerraiwb 7uj6i0d0fo3	The access point ID of the physical connection
└AdLocation	String	Room Ax-x, Building B, No. x of xxx Avenue, New York, US	The location where the leased line is connected
∟Bandwidth	Long	10	The bandwidth of the physical connection
∟BusinessSt atus	String	Normal	The payment status of the physical connection. Valid values: · Normal · FinancialLocked: locked due to overdue payment · SecurityLocked: locked due to security reasons

Parameter	Туре	Example value	Description
∟ ChargeType	String	Prepaid	The billing method of the physical connection
└CircuitCod e	String	longtel001	The number of the leased line from the service provider
└CreationTi me	String	2017-06-08T12:20 :55	The time when the physical connection is established
└Descriptio n	String	Physical connection	A description about 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
⊢ HasReserva tionData	String	true	Indicates whether subscription messages are received
∟LineOperat or	String	CT	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
└LoaStatus	String	Available	The status of the LOA
└Name	String	name	The name of the physical connection

Parameter	Туре	Example value	Description
└PeerLocati on	String	Zhejiang vfjdbg_21e	The location of the on-premises
└PhysicalCo nnectionId	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 type of physical connection ports: · 100Base-T: 100M electrical ports · 1000Base-T (default value): Gigabit electrical ports · 1000Base-LX: Gigabit singlemode optical ports (10 km) · 10GBase-T: 10-GE electrical ports · 10GBase-LR: 10-GE single-mode optical ports (10 km)
RedundantP hysicalCon nectionId	String	pc-119mfjzm7	The ID of the redundant physical connection
└Reservatio nActiveTime	String	2019-02-25T11:01 :04Z	The effective time of a renewal
└Reservatio nInternetC hargeType	String	PayByBandwidth	The type of renewal
└Reservatio nOrderType	String	RENEW	The type of the renewal order
└Spec	String	Large	The specification of the physical connection

Parameter	Туре	Example value	Description
∟Status	String	Initial	The status of the physical connection. Valid values: Initial: The physical connection has been applied for and is under review by Alibaba Cloud. Approved: The application is approved. Allocating: Resources are being allocated. Allocated: The leased line is being installed. Confirmed: The completed leased line installation needs to be confirmed by the customer. Enabled: The physical connection interface is enabled. Rejected: The application is rejected. Canceled: The application is canceled. Allocation Failed: Failed to allocate resources. Terminated: The physical connection is terminated.
└Type	String	VPC	The type of the physical connection. Default value: VPC.
TotalCount	Integer	10	The number of items in a list
PageNumber	Integer	10	The current page number
PageSize	Integer	10	The number of items per page
RequestId	String	EEC8EAB1-F299 -4F5C-8E54- 0A3129164C27	The ID of the request

Example

Request example

```
https:// vpc . aliyuncs . com /? Action = DescribePh ysicalConn
ections
& RegionId = cn - hangzhou
&< CommonPara meters >
```

Response examples

XML format

```
< DescribePh ysicalConn ectionsRes ponse >
 < PageNumber > 1 </ PageNumber >
 < TotalCount > 1 </ TotalCount >
 < PageSize > 10 </ PageSize >
 < RequestId > 7C07B0AF - 4FC0 - 4BB2 - 9667 - F75812824B CD </
RequestId >
  < PhysicalCo nnectionSe t >
    < PhysicalCo nnectionTy</pre>
      < Type > VPC </ Type >
      < PhysicalCo nnectionId > pc - 2zeoaxkq3j ot5p71qcnu y /
PhysicalCo nnectionId >
      < PeerLocati on > XXX - XX
                                    Road -- XXX
                                                  District </
PeerLocati on >
      < CreationTi me > 2017 - 12 - 13T02 : 28 : 42Z </ CreationTi</pre>
me >
      < Name > TEST </ Name >
      < Status > Enabled </ Status >
      < AdLocation > CabinetXXU DataCenter XXX -- XXX -- XX -- XXX
</ AdLocation >
      < EnabledTim e > 2017 - 12 - 18T04 : 01 : 30Z / EnabledTim e
      < BusinessSt atus > Normal </ BusinessSt atus >
      < LineOperat or > CT </ LineOperat or >
      < PortNumber > 1 / 1 / 4 < / PortNumber >
      < AccessPoin tId > ap - cn - beijing - dx - A </ AccessPoin
      < PortType > 100Base - T 
   < Bandwidth > 2 </ Bandwidth >
</ PhysicalCo nnectionTy pe >
 </ PhysicalCo nnectionSe t >
</ DescribePh ysicalConn ectionsRes ponse >
```

JSON format

```
" Name ":" TEST ",
" Status ":" Enabled ",
" AdLocation ":" CabinetXXU DataCenter XX -- XXX - XX -- XXX ",
" 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

HttpCode	Error code	Error message	Description
404	InvalidFilterKey .ValueNotSu pported	Specified filter key is not supported: Filter.X.key	The specified filter key , Filter.X.key, is not supported.

Click here to view the error codes.

2.4 ModifyPhysicalConnectionAttribute

Modifies the attributes of a physical connection.

Note the following before you call this action:

- · If you want to modify the specification or the redundant physical connection ID, the corresponding physical connection must be in the Initial or Rejected status.
- · You cannot modify the attributes of a physical connection that is in the Canceled, Allocating, AllocationFailed, or Terminated status.
- · After modification, a physical connection in the Rejected status will change to the Initial status.

Debug

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

Request parameters

Parameter	Туре	Required ?	Example value	Description
Action	String	Yes	ModifyPhys icalConnec tionAttribute	The name of this action. Value: ModifyPhys icalConnec tionAttrib ute
PhysicalCo nnectionId	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.
CircuitCod e	String	No	longtel001	The circuit code provided by the carrier for the physical connection.
ClientToke n	String	No	efefe566754h	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.
Descriptio n	String	No	The description of the physical connection	The description of the physical connection. The description must be 2 to 256 characters in length. It must start with a letter, but cannot start with http://or https://.

Parameter	Туре	Required ?	Example value	Description
LineOperat or	String	No	CT	The carrier that provides the physical connection. Valid values: CT: China Telecom CU: China Unicom CM: China Mobile CO: Others in China Equinix: Equinix Other: Others outside China
Name	String	No	The name of the physical connection	The name of the physical connection. The name must be 2 to 128 characters in length and can contain letters, numbers, periods (.), underscores (_), and hyphens (-). The name must start with a letter. It cannot start with http://or https://.
PeerLocati on	String	No	Zhejiang Province vfjdbg_21e	The geographic location of the on-premises data center.

Parameter	Туре	Required ?	Example value	Description
PortType	String	No	E1 - 2M	The port type of the physical connection. Valid values: · 100Base - T : 100 Mbps electrical port · 1000Base - T (default): 1 Gbps electrical port · 1000Base - LX : 1 Gbps single-mode optical port (10 km) · 10GBase - T : 10 Gbps electrical port · 10GBase - LR : 10 Gbps single-mode optical port (10 km)
RedundantP hysicalCon nectionId	String	No	pc-119mfjzm7	The ID of the redundant physical connection. The redundant physical connection must be in the Allocated, Confirmed, or Enabled status.
Bandwidth	String	No	5	The bandwidth in Mbps of the physical connection. Value range: 2 to 10240.

Response parameters

Parameter	Туре	Example value	Description
RequestId	String	013EE132-A109 -4247-91B0- 099A8FF49AD7	The ID of the request.

Examples

Request example

```
https:// vpc . aliyuncs . com /? Action = ModifyPhys icalConnec
tionAttrib ute
& PhysicalCo nnectionId = pc - 119mfjzm7
& RegionId = cn - shanghai
&< CommonPara meters >
```

Response example

· XML format

```
< ModifyPhys icalConnec tionAttrib uteRespons e >
  < RequestId > 8A6A5EC5 - 6F6C - 4906 - 9689 - 56ACE58A13 E0 "</
RequestId >
</ ModifyPhys icalConnec tionAttrib uteRespons e >
```

· JSON format

Error codes

HTTP status code	Error code	Error message	Description
404	InvalidPhy sicalConne ctionId. NotFound	The PhysicalConnectionId provided does not exist in our records.	The specified physical connection does not exist.
400	InvalidPee rLocation. Malformd	The PeerLocation provided was invalid.	The value of the PeerLocation parameter is invalid.
400	InvalidPortType. Malformd	The PortType provided was invalid.	The specified port type is invalid.
400	InvalidDes cription. Malformed	The specifid ?Description ? is not valid.	The format of the description is invalid. The source description can be 2 to 256 characters in length. It cannot start with http:// and https://.
400	InvalidName. Malformed	The specified ?Name? is not valid.	The name format is invalid.
400	InvalidStatus	invalid physical connection status.	The specified physical connection status is invalid.

HTTP status code	Error code	Error message	Description
400	InvalidBan dwidth	invalid physical connection banwidth.	The specified physical connection bandwidth is invalid.
400	InvalidRed undantPhys icalConnection	redundant physical connection doesn't belong to current user.	The specified redundant physical connection does not belong to your account.
400	InvalidRed undantPhys icalConnec tionStatus	invalid redundant physical connection status .	The status of the redundant physical connection is invalid.
400	InvalidCir cuitCode. Malformed	circuitCode is illegal.	The specified circuit code is invalid.

See common error codes

2.5 TerminatePhysicalConnection

Terminate the access of the physical connection after the physical connection is enabled. The physical connection changes to the Terminating status after the API is called and changes to the Terminated status when the process is completed.

Note the following before terminating a physical connection:

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

Request parameters

Name	Туре	Require	Description
Action	String	Yes	The action to perform. Valid value:
			TerminateP hysicalCon nection

Name	Туре	Require	Description
RegionId	String	Yes	The region of the physical connection. You can obtain the region ID by calling the DescribeRegions API.
PhysicalCo nnectionId	String	Yes	The ID of the physical connection.

Response parameters

Name	Туре	Description
RequestId	String	The ID of the request.

Examples

Request example

```
https:// vpc . aliyuncs . com /? Action = TerminateP hysicalCon
nection
& PhysicalCo nnectionId = pc - 2zeoaxkq3x xxxx
& RegionId = cn - beijing
& CommonPara meters
```

Response example

XML format

```
<? xml version =" 1 . 0 " encoding =" UTF - 8 "? >
    " RequestId ": " 513E0A50 - 4F2D - 4CBE - BF35 - 40559DF65D 79 "
```